

SATELLITE	1. Turksat 3,4	V4A (42.0°	E)	DVR			210 1 1 1
TP	38. 11767-Vi	+15000		DISEQC	DISECC	0	
LNB	UNIVERSAL			POWER	AUTO		PUHTA
SIGNAL						885	76.1 dBµV
QUALITY						71%	11.8 dB
LNB C.	42 mA	MER	10.7 dB	LINK M.	25 d B	MER	2.05-002
OFFSET	965 KHz	MOD		8PSK 3/4		ABER	<1.005-7
1	TRIM	2 CONST	ELLATION	FI SCAN C	HANNELS		



AS07-STCA 4K

DVB-S/S2





USER GUIDE

Please read this manual carefully before using your Signal Analyzer.

MADE IN TÜRKİYE

ENGLISH USER GUIDE INDEX

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SAFETY INSTRUCTIONS:

Matters to Consider:

To prevent any harm to yourself or your device, strictly follow the instructions below.

Before cleaning your device, unplug the charging cable, turn it off with the Power On/Off button and clean it with a dry cloth.

Do not use accessories or additional equipment that are not recommended by the manufacturer of the device, as they may damage the device and void the warranty of the device. While carrying your device, protect it from impacts and falls, otherwise the device may be damaged. Be sure to carry your device in its bag and do not carry it in boxes such as tool bags or with equipment that may be damaged, otherwise the device will be out of warranty.

Do not use your device outdoors in rainy and snowy weather to protect it from liquid contact. If you smell smoke, any other smell or hear different sounds from inside the device, please turn off your device and contact service.

Charge your device with the recommended charging adapter and in-car cigarette lighter charger. Chargers that are not suitable for use will damage the batteries inside your device, overheat and explode, and may harm you. These situations are the responsibility of the user. When using charging adapters, make sure that they are powered by 12Volt-3000mAh (Center +). Do not leave the device on, the batteries in the device left on will lose their function over time.

Lighter charger, charging adapter and batteries are not covered by warranty as their lifespan varies depending on use. Be careful about short circuits when connecting your device to LNB and antenna amplifiers, otherwise your device may be damaged.

Use suitable low radiation cables for signal input/output, especially when working with high levels. Only use your device to make measurements in systems whose negatives are connected to ground potential.

CAUTION: The battery used may present a fire or chemical burn hazard if seriously mishandled. Under no circumstances should you disassemble the battery, incinerate it or heat it above 65 °C.

Service Related Topics:

Do not try to repair your device yourself. When you open the cover of your device, it will be out of warranty. For all device-related services, contact your dealer or technical service.

Use batteries sold or recommended by the manufacturer.

AS07STCA-4K

SAT-TERR-CATV FIELD SIGNAL METER

Description:

AS07STCA-4K is a light, portable, ergonomic, user-friendly interface and 4K image processing field measurement device designed to ensure the best performance of analog and digital TV System installations. There are also various CCTV (AHD/TVI/CVI), HDMI and CVBS video input features for system installers. DVB-S/S2 Satellite band, DVB-C Cable TV band (ANNEX A/B/C), DVB-T/T2 Terrestrial TV band (ISDB-T) and Mobile GSM (2G-3G-4G-5G) bands at 40-2150Mhz covers the range.

AS07STCA-4K measures many digital and analog parameters that installers may need in a fast and accurate range with various algorithms. It also shows broadcasts in SD-HD-FHD-4K video resolutions on the screen. It enables installers to provide accurate and fast service in all their services with TV measurement and spectrum Analyzer functions.

GENERAL SPECIFICATIONS

DVB S-S2 / T-T2 / C / J.83B / ISDB-T / GSM MOBILE COMBO Field Signal Analyzer Single Rf input 40-2150mhz 75 ohm F Connector 20-100dBuV Satellite Band Measurement (± 3 dB Sensitivity) 20-105dBuV Catv-Terr Measurement (± 3 dB Sensitivity) 7" high resolution touch screen Signal Measurement Screens Spectrum Analysis Screens **Constellation Screens Table Measurement screens** Multi Level Measurement Screens Tilt-Limit Measurement Screens Rf – aBer – bBer- Per – C/N – Mer – Link Margin Measurement Video input for AHD-TVI-CVI and Analog CCTV cameras HDMI In/Out and AV In/Out Capability H.264, H.265 4K video display Program List and Audio&Video PID information on one screen. 1.9 GHz High-speed Processor – 16GB Memory 7000mAh 7.4V replaceable Lith-Ion battery can work for 3-4 Hours. Software and frequency plan update via LAN Network 100M or USB Windows PC software to prepare frequency plan Programmable 50 Catv Plans, 50 Terresterial Plans, 250 Satellite Memory 10,000 Frequency and Channel Memory Backlit numeric silicone keypad Battery protection and the automatic shut-off feature Led torch light for dark environments Voltage Test screen for end user testing. 2 kg with battery Dimensions 250mm X 180mm X 50mm Operating Range 0 °C to +50 °C Relative Humidity 90% With Carrying Bag and Silicone Case 12Volt - 3A Charger and Car charging cable Menu in 20 Different Languages

Time Zone and Time - Date Setting

DVB-S/S2 FEATURES:

: 950 – 2150 Mhz frequency measurement range
: 20-100dBuV Satellite Band Measurement (± 3 dB Sensitivity)
: RF Power, aBER, bBER, MER, C/N and LINK MARJIN
: 250 Satellite Memory + 10.000 Channels
: 0 ~ 20dB
: 1 ~ 45Ms/s
: Auto/13V/18V/21V, 500 mA max
: Spectrum Analyzer with real time and image memory
: 10-20-50-100-200-500-Full Spectrum Span ranges
: Automatic NIT frequency recognition and channel scan on the
Spectrum screen
: Displaying 4 TP for 1 satellite and 8 TP for 2 satellites in one screen
: Ability to measure 2 satellite signals in one screen for Dual Feed Inbs
: TONE - 1.0 – 1.1 – 1.2 – 2.0 - USALS
: UNICABLE I (EN50494) – UNICABLE II (EN50607-dCSS)
: Yes
: 34 LNB types and 3 User Defined LNB Types
: dBm, dBuV, dBmV
: Satellite Frequency Measurement and saving to USB memory as *.cvs
: Single TP / All Satellite / Blind Scan / NIT Scan
: Automatic discovery of Diseq-C ports
: QPSK - 8PSK
: DVB-S:1/2, 2/3, 3/4, 5/6, 7/8 –
: DVB-S2: 1/2, 2/3, 3/4, 5/6, 8/9, 9/10, 2/5, 3/5
: Warnings based on Power Level

DVB-C & J.83B & DVB-T/T2 & ISDB-T FEATURES

Frequency Band	: 45 – 1002 MHz frequency range
Digital Meas. Range	: 25-100dBuV Satellite Band Measurement (± 3 dB Sensitivity)
Analogue Meas. Range	: 20-105dBuV Satellite Band Measurement (± 3 dB Sensitivity)
Digital Meas.Screens	: RF Power, aBER, bBER, MER and LINK MARJIN
Analog Meas. Screens	: RF Power, C/N , Δ V/A
Memory	: 50 Frequency Plans
MER	: 5 ~ 40dB
Antenna Feed	: 5V/12V/20V, 500 mA max
Spectrum Analysis	: Spectrum Analyzer with real time and image memory
Span	: 10-20-50-100-200-500-Full Spectrum Span ranges
NIT Search	: Automatic NIT frequency recognition and channel finding in Spectrum
Constellation	: DVB-C - 16, 32, 64, 128 , 256QAM
	J.83B – 64, 256 QAM
	DVB-T - QPSK, 16, 64QAM
	DVB-T2 - QPSK, 16, 64, 256QAM
	ISDB-T – DQPSK, QPSK, 16QAM, 64QAM
LCN	: Yes
Power Unit	: dBm, dBuV, dBmV
Table Measurement	: Frequency Plan Measurement and saving to USB memory as *.cvs
Call	: Single Frequency / All Plan
Analogue TV Systems	: M/N/B/G/H/I/D/K/L

GSM MOBILE FEATURES

GSM	: 900 MHz
DCS	: 1800 Mhz
UMTS 3G	: 2100 Mhz
4G LTE	: 800 Mhz
5G Low	: 700 Mhz
Signal Meas. Range	: 15-105dBuV Satellite Band Measurement (± 3 dB Sensitivity)
Analog Meas.Screens	: RF Power
Spectrum Analysis	: Spectrum Analyzer with real time and image memory
Span	: 10-25-50-100-Full Spectrum Span ranges
Power Unit	: dBm, dBuV, dBmV

CCTV – A/V – HDMI INPUT FEATURES

ANALOG	: PAL - NTSC AV INPUT
AHD	: 1MP, 2MP, 3MP, 4MP, 5MP, 8MP
TVI	: 1MP, 2MP, 3MP, 4MP, 5MP, 8MP
CVI	: 1MP, 2MP, 4MP, 8MP
HDMI IN	: SD – HD - FHD
HDMI OUT	: SD – HD – FHD -4K
AV IN	: PAL - NTSC AV Input
AV OUT	: PAL – NTSC 576p

FRONT CONTROL PANEL VIEW



PRODUCT CONTENT and EQUIPMENT:

<u>1pc AS07STCA-4K Device and Silicone Protection Case:</u>

The product will be protected from harmful effects such as dust, dirt and moisture with the silicone protection case included in the box with your device. Please do not carry your device in a toolbox. The silicone protection case is not enough for jamming and hard impacts. Your device may be out of warranty.

DVB-S/S2	SIGNAL		13V 22I	3 🔲 🗉 🛡	03:10 99%	AV/AHD AUDO LIST
SATELLITE	1. Turksat 3A	/4A (42.0° E)	DVB-S2	TRT 4K		
ТР	38. 11767-VH	I-15000	DISEQC	DISEQC 1.0	PORT A	
LNB	UNIVERSAL		POWER A	NTO		
SIGNAL				88%	76.1 dBµV	
QUALITY				71%	11.8 dB	
LNB C.	42 mA	MER 10.7 d	B LINK M.	2.5 dB bBER	2.0E-002	
OFFSET	965 KHz	MOD	8PSK 3/4	aBER	<1.00E-7	
F1 SPEC	TRUM	² CONSTELLATION	F3 SCAN CHAN	INELS ESC	EXIT	

1pc 12V-3A Charger:



You can keep the device constantly charged with your 12 Volt output electric charging adapter so that you can use your device in environments where there is no electricity. Keep the charging adapter away from pinching, impact and overloading. Do not open to repair or inspect.

1 pc 12 Volt Battery Charger:



You can keep the device constantly charged with your 12 Volt output battery charging adapter so that you can use your device in environments where there is no electricity. You can charge your device while travelling with in-car charging. Keep the 12 Volt Battery Charger adapter away from pinching, impact and overloading.

1 pc HDMI Cable:



1 pc A-V Tos Cable:



The AV input on your device allows you to test external Video and Audio signals. You can also test devices that require focus and direction adjustment, such as security cameras.

1 pc BNC patch Cable:



You can connect the video inputs of AHD-TVI-CVI-PAL cameras to the CCTV BNC input on your device and then test the direction, angle and focus settings.

<u>1pc 12V Output Supply Cable:</u>



This is a patch cable that you can use to supply the camera or RF amplifier from the 12V-2A output on your device.

<u>2 pcs F-F InterConnector:</u>



Use continuously your F-F Interconnector on your device. The Tuner input of your device will not be affected by wear, tear and overuse by only replacing the F-F Interconnector.

<u>1 pc F-Male Antenna InterConnector:</u>



You can easily connect cables from Catv and Terr antenna sockets with the F-Male InterConnector.

<u>1 pc F-Female Antenna InterConnector:</u>



You can easily connect cables from Catv and Terr antenna sockets with the F-Female InterConnector.

<u>1 pc F Connector Rotation Apparatus:</u>



You can easily turn it with this apparatus in multiswitch and diseqc connections where the F connector is difficult to rotate.

1 pc Protective Carrying Case:

The Carrying Case and Protection Case protects your device against negative factors such as dust, dirt and drops. You can safely carry your device in your hand with the side handle and on your shoulder with the neck strap. You can use it in sunny environments with the sun visor.



MAIN MENU AND DESCRIPTIONS:

STARTING THE DEVICE:

Turn on your AS07STCA-4K device by pressing the POWER ON/OFF button and select the language you want to use from the box that appears at the first startup. (Warning: If your device does not react in any case, you can reset it by holding the ON/OFF button for 10-15 seconds.)

STCA SETTINGS		OFF 22K		20 41%
		LAFUNI DATA	DAOL	
MENU LAY	LANGUAGE			
	1 ENGLISH		Settings	
	2 TURKISH		N/A	
	3 DEUTSCH		A/V OUT	
	4 RUSSIAN			
	5 ITALIAN			
	6 ARABIC			
	7 ESPANOL			
				EXIT

Then, select the time zone you are in or the time zone in which you want to use your device. In this way, when the device receives the time information together with the signal from the satellite when the time information is obtained automatically by connecting to the internet via Lan or when the time information is entered, the measurements made will be memorized together with the time information.

STCA SETTINGS	i OFF 22K 🔤	J 🔲 01:20 🚺 41%
	LAFURI DATADASL	
MENU LAY	TIME ZONE	
	10 GMT-03 Brasilia, Greenland, Buenos Aires	Settings
	11 GMT-02 Mid-Atlantic Time	N/A
	12 GMT-01 Azores, Cabo Verde Islands	A/V OUT
	13 GMT+00 Edinburgh, Lisbon, London, Dublin	
	14 GMT+01 Amsterdam, Berlin, Rome, Vienna	
	15 GMT+02 Athens, Bucharest, Cairo, Helsinki	
	16 GMT+03 Istanbul, Nairobi, Baghdad, Kuwait	
		ISC EXIT

The screen will then blackout and the MAIN MENU will appear. You can select the systems you want to measure and the video systems you want to view on this screen.

MAIN MENU:

The Main Menu of the AS07STCA-4K device has a user-friendly structure. From the Settings menu, you can remove function icons that you do not want to appear on the home screen and change their position on the screen.



- 1. Help page: It opens the guide page for the function in the current menu.
- 2. LNB supply: 13/18/22Khz indicates feed on/off position.
- 3. Led Indicates that the flashlight is working.
- 4. It becomes visible when the USB is plugged in.
- 5. It becomes visible when the LAN cable is connected to the network.
- 6. It indicates the operating time of the device's battery.
- 7. It indicates the operating charge percentage of the device's battery.
- 8. DVB-S/S2: Measurement menu for Satellite TV system signals.
- 9. DVB-C: Measurement menu for cable TV system signals.
- 10. DVB-T/T2: Measurement menu for terrestrial TV system signals.
- 11. Settings: You can customize the operation of the device with the user-friendly menu.
- 12. GSM MOBILE: Measurement menu for 5G-4G-3G-2G-Gsm Mobile downlink signals.
- 13. J.83B: Measurement menu for Cable TV Annex B, TV signal or internet signals.
- 14. ISDB-T: Measurement menu for terrestrial TV system signals from Japan-Brazil-Philippines, etc.
- 15. AHD/TVI/CVI/PAL: Camera setting and test menu with CCTV input.
- 16. HDMI IN: Test menu for external 1080p HDMI signal.
- 17. HDMI OUT: Test menu by transferring an HDMI image to a monitor or Display.
- 18. A/V OUT: PAL video test with AV output.
- 19. Software version and date: This information will be coloured yellow when new software is received when the device is connected to the internet via Lan. You can go to the settings menu and update the software.
- 20. It will appear in this field when it receives an IP address when the device is connected to a network via Lan.

|--|

STCA SE	TTINGS		i OFF 22	K	•	03:05	97%
	LANGUAGE	ENGLISH					
	AUTO POWER OFF	60 Minutes					
	OSD DELAY	5 Seconds					
	BACKLIT TIMEOUT	15 Seconds					
	FLASH LED POWER	Medium					
	FLASH LED TIMEOUT	2 Minutes					
	SOUND EFFECTS	All					¥
					ESC	EXIT	

LANGUAGE: You can choose from languages such as ENGLISH / TURKISH / GERMAN / RUSSIAN / ITALIAN / ARABIC, etc...

<u>AUTO SHUTDOWN</u> 5-10-20-30-30-60 Minutes/Off: if you leave the device on and do not press any buttons, it will turn off automatically after the time selected in auto power off. This will protect both your device and battery life.

OSD DELAY: 1-2-3-4-5-10 seconds. You can set how long the OSD menus remain open on the screen.

KEY LIGHT: You can set how long the backlight of the silicone keypad stays on.

<u>FLASHLIGHT LED POWER</u>: You can change the power of the flashlight in Min/Medium/Max.

<u>FLASHLIGHT LED DURATION</u>: You can change the duration of the flashlight on for 1/2/3/4/4/5 minutes.

<u>SOUND EFFECTS:</u> You can change the sounds that the device outputs as All / Call Sound Only / Effects Only / All.

STCA SE	TTINGS	i) OFF 22K 🚥 🖪 📟 03	:00 97%
	ATV VOLUME	HIGH	
	SPECTRUM COLOR	GREEN	
	SPECTRUM DISPLAY	FILLED	
	TV SYSTEM	PAL B/G	
	TIME ZONE	GMT+03 Istanbul, Nairobi, Baghdad, Kuwait	
	DATE / TIME	03/10/2023 21:04:43 (GMT+03) (INT)	
	DEVICE ID	STCA23000109	
		ESC	EXIT

<u>ATV SOUNDS</u>: You can adjust the volume level you want to output while showing terrestrial and cable analogue TV images.

<u>SPECTRUM COLOUR</u>: You can set the colour of the RF level in the spectrum area.

<u>SPECTRUM VIEW</u>: You can show the upper point of the spectrum level as Linear or Full.

<u>TV SYSTEM</u>: It determines the standard to be selected for the device for the channels found by the Table Search or Automatic Search menus for Analogue TVs.

TIME ZONE: You can adjust all GMT zone settings.

<u>DATE / TIME:</u> The device's Date and Time are set automatically when you watch any channel, when the LAN cable is plugged in, or the user can set it manually each time the device is turned on. The device will not memorize the time and date.

<u>DEVICE ID:</u> It shows the serial number of the device.

STCA SET	TTINGS	i OFF 22K 💿		3:00 98%
	MAC ID	A8:A8:00:00:00:09		
	HARDWARE VERSION	HW VER 1.09		
	FIRMWARE VERSION	STCA V1.640 02.10.2023	UPDATE	
	ANDROID VERSION	PPR1.190823.006 / 20230819	UPDATE	
	DATABASE VERSION	POLSKA Database 03.10.2023		
		IMPORT DATABASE FROM S	ERVER	
		IMPORT DATABASE FROM	USB	
			ESC	EXIT

MAC ID: It indicates the MAC ID defined for the device.

HARDWARE VERSION: It indicates the hardware version of the device.

<u>SOFTWARE VERSION</u>: It indicates the version of the device's software. When the UPDATE box is active, you can update the firmware.

<u>OPERATING SYSTEM VERSION</u>: It indicates the operating system version of the device. You can update the device operating system when the UPDATE box is active.

DATABASE VERSION: It shows information about the databases you have used.

<u>EXPORT THE DATABASE FROM THE SERVER</u>: You can quickly update your device's frequency plans by uploading a ready-made database file containing all the settings and frequency plan changes for your country or continent from the server to your device.

EXPORT DATABASE FROM USB: You can upload the databases that you have previously stored or edited in a PC program to your device via USB.

EXPORT DATABASE TO USB: You can save all Satellite, Frequency, Channel, Plans, and settings used by the device to USB and reuse them later or change them with a PC program. You can share it with other users and carry different database records for different regions in your USB Memory.

STCA SETTINGS		i off	22K	1 🛡 03	3:00 97%
	E	XPORT DAT	ABASE TO US	В	
MENU LAYOUT	DVB-S/S2	DVB-C	DVB-T/T2	Settings	
	Mobile	J.83B	ISDB-T	N/A	
	AHD/TVI	HDMI IN	HDMI OUT	A/V OUT	
		RESET	LAYOUT		
		VOLTA	GE TEST		
	RE	STORE FACT	ORY SETTIN	GS	↓ ₹
				ESC	EXIT

<u>MENU LAYOUT</u>: You can change the location of the boxes in the MAIN MENU according to your own ease of use and remove the boxes you do not use.

<u>RESET LAYOUT</u>: If you have moved the boxes in the MAIN MENU, reset it, and it will be as before.

<u>RESTORE FACTORY SETTINGS</u>: You can restore the Satellite, Frequency, Channel, Plans, and settings on your device to their original state. If you have done a lot of processing and you don't want to lose this information, you can export your device in its best condition to a USB memory by appearing EXPORT DATABASE. You can upload this database to the device after each Factory Reset.

VOLTAGE	TEST	T OFF 22K 💽 🖬 🖓 01:15 🔲 374					37%		
MAIN BOAR	D		AHD / TVI /	AHD / TVI / CVI / CVBS			BATTERY / CHARGER		
5.0V	5.21 V	ОК	3.3V	3.33 V	ок	BATTERY	7.33 V	ок	
3.3V	3.38 V	ок	1.8V	1.83 V	ок	CHG. IN	0.00 V	OFF	
1.8V	1.84 V	ок	1.2V	1.19 V	ок	CHG. CUR	RR 0.00 A	OFF	
CPU			TUNER			LNB VOLTAGE TEST			
1.5V	1.52 V	ок	3.3V	3.42 V	ок	12V	12.3 V	ок	
1.0V	1.00 V	ок	1.1V	1.11 V	ок	LNB OUT	OFF		
0.8V	0.86 V	ОК				LNB CURI	2	0.00 A	
						ES	^C EXIT		

VOLTAGE TEST You can see the supply VOLTAGE values of the electronic circuits that ensure the stable operation of the device. If it is within the desired values, the boxes will appear OK in GREEN colour. If you have a problem with your device, you can get preliminary information and contact the service if there are Red Error messages by going to this menu.

INSTRUCTION FOR USE ON DVB-S/S2 SATELLITE TV MEASUREMENT:

Enter the DVB-S/S2 menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad.



DVB-S/S2 SETTINGS:

DVB-S/S2	SETTINGS	13V 22K 💿 🖪 🖵 00:15 📑 10%
	Power Unit	dBµV
	Power Calibration	0.0 dB
	Min RF Level	40.0 dBµV
	Max RF Level	80.0 dBµV
	Min MER	25.0 dB
	Max BER	1.XXE-1
	Latitude	41.0000 N
		ESC EXIT

Power Unit: You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration:</u> The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, change this value to plus + or minus - to calibrate the levels closer to the correct level.

<u>Min RF Level</u>: If this is less than the RF level value when measuring the signal, the correct installation is not confirmed.

<u>Max RF Level</u>: If the RF signal level you set is higher than this value, it may damage the system or prevent correct distribution.

<u>Min MER:</u> When the MER value drops below this level, the device will not confirm that the installation was done correctly.

DVB-S/S2 SETTINGS		13V 22K 💽 🖪 🖵 00:15 💽 10%
Latitude		41.0000 N
Longitude		29.0000 E
Channel Scan LCN		OFF
SATELLITES	147	SATELLITE SETTINGS
LNB'S	37	LNB SETTINGS
TRANSPONDERS	3922	DELETE ALL TP
CHANNELS	217	DELETE ALL CHANNELS
		ESC EXIT

Max BER: You can choose how much the Bit Error Rate data rate can be.

Latitude: You can enter the Latitude of your current location.

<u>Longitude:</u> You can enter the Longitude value of your current location. You can have settings such as the Diseq-C engine automatically processed by entering these two values according to your location.

<u>LCN Scanning</u>: The device sorts the Channel assignment on the scanned platform frequencies according to the LCN (logic channel number) value.

SATELLITES: It shows the number of satellites in memory. You can switch to the Satellite Settings Menu and add, remove, and change the Satellite/TP sequence yourself.

DVB-S/S2	SETTINGS			13V 22K 💿 🖪 🛡 00:15 💽 10%
				J
	SATELLITES	147		SATELLITE SETTINGS
	LNB'S	37		LNB SETTINGS
	TRANSPONDERS	3922		DELETE ALL TP
	CHANNELS	217		DELETE ALL CHANNELS
	UNICABLE IF LIST			UNICABLE-II IF LIST
		Restore Factory D	efa	aults
				ESC EXIT

LNBs: It shows the number of LNBs in memory. You can switch to the LNB SETTINGS Menu and change the user LNB settings so you can add an LNB type that is not in memory.

TRANSPONDER: It shows the number of TPs in memory. You can delete all TPs here.

CHANNELS: It shows the number of CHANNELS in memory. You can delete all Channels here, reducing the space they occupy in the device's memory.

UNICABLE II (dCSS)		13V 22K	B 💭 00:15 10%
UB 1 1210 MHz		POSITION	
UB 2 1420 MHz		IF FREQ	1210 MHz
UB 3 1680 MHz			
UB 4 2040 MHz			
UB 5 984 MHz	Do you want to download IF L	ist automatically?	
UB 6 1020 MHz	ОК	CANCEL	
UB 7 1056 MHz			
UB 8 1092 MHz			
UB 9 1128 MHz		AU"	TO DOWNLOAD
			ESC BACK

UNICABLE II (dCSS)	13V 22K 💽	🔳 📟 00:15 🚺 10%
UB 1 1210 MHz	POSITION	1
UB 2 1420 MHz	IF FREQ	1210 MHz
UB 3 1680 MHz		
UB 4 2040 MHz		
UB 5 984 MHz		
UB 6 1020 MHz		
UB 7 1056 MHz		
UB 8 1092 MHz		
UB 9 1128 MHz	AUT	FO DOWNLOAD
		ESC BACK

UNICABLE-I IF LIST: You can set the UB User frequencies of UNICABLE-I in EN50494 standard from this menu.

UNICABLE-II IF LIST: You can set the UB User frequencies of UNICABLE-II in EN50607 standard as Automatic or Manual from this menu.

Factory Reset: The device can restore all information in the DVB-S/S2 Satellite menu to factory defaults.

Note: You can press and hold the ON/OFF button for 10-15 seconds to RESET and restart the device when the device does not respond to any of the buttons.

SATELLITE/TP SETTINGS:



You can change the order, name, orbit, LNB setting, Diseq-C settings and other parameters of the Satellite from this menu.



You can add to the satellites in the device's memory with the "NEW" box, delete the current satellite with the "DELETE" box, and change the name of the satellite by touching the satellite name.

DVB-S/S2 TRANSPONDERS	13V 2	2K 💽	1 🗢 00:15	11%
TP LIST (Turksat 3A/4A 42.0° E)	POSITION	1		
1 12423-VH-27500 (NIT FREQ)	NETWORK	NIT FREQ		
2 11054-VL-30000 (TRT)	EBEQUENCY	10400 MI	17	
3 11958-VH-27500 (TRT)	FREQUENCT	12423 101	12	
4 12054-HH-27500 ({90DDA122-D72A	S.RATE	TE 27500 Kbps		
5 12219-HH-6500 (SHOW TV)	POLARITY	VERTICAL		
6 12209-HH-10000 (CINER)				
7 12380-VH-27500 (TURKSAT)				
8 11977-HH-27500 (DEMIROREN MED				
^{F1} NEW TP ^{F2} DELETE TP	F3 DELETE	ALL	ESC BACK	

You can add or delete TP frequencies and change the network name and parameter settings on the satellite you will measure by touching the TP List box.

DVB-S/S2 SATELLITE SIGNAL MEASUREMENT:

DVB-S/S2 SIGNAL				13V	22K)3:10 99%	
SATELLITE	1. Turksat 34	1. Turksat 3A/4A (42.0° E)			DVB-S2 TRT 4K			
ТР	38. 11767-VI	38. 11767-VH-15000			DISEQC 1.	DISEQC 1.0 PORT A		
LNB	UNIVERSAL	UNIVERSAL			AUTO	AUTO		
SIGNAL		88% 76.1 dBμV						
QUALITY						71%	11.8 dB	
LNB C.	42 mA	MER	10.7 dB	LINK M.	2.5 dB	bBER	2.0E-002	
OFFSET	965 KHz	MOD		8PSK 3/4		aBER	<1.00E-7	
F1 SPECT	TRUM	F2 CONSTEL	LATION	F3 SCAN CH	HANNELS	ESC	EXIT	

Your AS07STCA-4K is capable of measuring DVB-S/S2 - QPSK/8PSK signals. It can also show SD-HD-FHD-4K TV channels. You can select the satellite, transponder, Diseqc Type and Inb type you want to adjust your dish antenna or check the signal levels and see the signal values on the screen. You can also make more detailed settings with the SPECTRUM and CONSTELATION box.

<u>SATELLITES</u>: The satellite names in the device's memory will respectively be shown when you touch the box or press the OK button. You can add new satellites or change this order in the Satellite/TP Settings menu.

<u>TP:</u> It shows the TPs on the satellite you have selected. You can change TPs with the right and left buttons or by touching the box.

<u>DISEQC:</u> You can select NO / TONE / DISEQC 1.0 / DISEQC 1.1 / DISEQC 1.1 / DISEQC 1.2 (MOTOR) / USALS / UNICABLE I (EN50949) / UNICABLE II from this box. You can select the port of the switch type you have selected from the box next to it.

DVB-S/S2	SIGNAL	13V 22K •		D:30 19%
SATELLITE	1. Turksa	DISEQC	HD	
ТР	2. 11054-	2 TONE		PORT A
LNB	UNIVERS	3 DISEQC 1.0		
CIONAL		4 DISEQC 1.1	0.0%	70.0 dD: 11
SIGNAL		5 DISEQC 1.2 (MOTOR)	89%	78.9 dBhA
QUALITY		6 USALS	87%	16.6 dB
LNB C.	40 m	7 UNICABLE (EN50494)	BER	1.1E-003
OFFSET	962 KI	8 UNICABLE II (dCSS)	BER	<1.00E-7
F1 SPECT	TRUM	F2 CONSTELLATION F3 SCAN CHANNELS		EXIT

<u>UNICABLE MODE</u>: You can operate the device in UB mode by selecting UNICABLE I (EN50949) / UNICABLE II (dCSS).

DVB-S/S2	SIGNAL		13V 22K	00:30
SATELLITE	1. Turksa	PORT	URK F	HD
ТР	2. 11054-	1 SAT A UB 1 (1210 MHz)	dC	SAT A UB 1 (
LNB	UNIVERS.	2 SAT A UB 2 (1420 MHz)		
SIGNAL		3 SAT A UB 3 (1680 MHz)	80%	78.9 dBuV
SIGNAL		4 SAT A UB 4 (2040 MHz)	0.976	70.9 αυμν
QUALITY		5 SAT A UB 5 (984 MHz)	87%	16.7 dB
LNB C.	40 m	6 SAT A UB 6 (1020 MHz)	BER	1.1E-003
OFFSET	962 Kł	7 SAT A UB 7 (1056 MHz)	}ER	<1.00E-7
F1 SPECT	TRUM	^{F2} CONSTELLATION ^{F3} S	CAN CHANNELS	EXIT

Touch and hold the Box, and the device will communicate with Unicable and download UB frequencies automatically after making the selection.

UNICABLE II (dCSS)		13V 22K 💽	8 💭 00:15 🚺 10%
UB 1 1210 MHz		POSITION	
UB 2 1420 MHz		IF FREQ	1210 MHz
UB 3 1680 MHz			
UB 4 2040 MHz			
UB 5 984 MHz	Do you want to download IF Li	st automatically?	
UB 6 1020 MHz		CANCEL	
UB 7 1056 MHz			
UB 8 1092 MHz			
UB 9 1128 MHz		AU	TO DOWNLOAD
			ESC BACK

You can then change all UB frequencies one by one, either automatically or manually.

 $\underline{\text{LNB:}}$ The device has 34 ready-made LNB types and three user-defined LNB types for a total of 37 LNB types.

<u>POWER:</u> You can change the LNB supply power from this box with the OFF/13V/18V/13V/13V22KHZ/18V22KHZ/18V22KHZ/21V/AUTO options.

<u>SIGNAL</u>: You can see the RF signal level at the frequency you have selected on the screen as a graph with bars from Red to Green and as a percentage (%). You can see the RF level in "dBuV, dBm, dBmV" in the box to the right.

<u>QUALITY:</u> You can see the SNR value at the frequency you have selected on the screen as a graph and percentage (%) with bars from Red to Green. You can see the SNR value in "db" in the box to the right.

You can use a measurement display with a larger font by touching the signal bar.

DVB-S/S2 SIG	GNAL	13V 22K	03:10 99%
Turk	sat 3A/4A 12423	-VH-2750	0 (NIT FREQ)
S			88%
Q			74%
PWR	76.1 dBµV	MER	11.1 dB
^{F1} SPECTRU	M F2 CONSTELLATION	F3 SCAN CHANN	ELS ESC EXIT

<u>Diseq-C Motor 1.2</u>: Select the Diseqc 1.2 Motor from the DISEQC TYPE section. You can see the SIGNAL levels, and at the same time, you can manually rotate your Diseqc 1.2 Motor to EAST / WEST by pressing the EAST / WEST boxes.

DVB-S/S2	SIGNAL		13V	22K		10:35 20%		
SATELLITE	1. Turksat 3A	/4A (42.0° E)		DVB-S	52 So	canning		
ТР	2. 11054-VL-3	80000 (TRT)		DISEQC	DISEQC 1.	2 (MO PORT 1		
LNB	UNIVERSAL			POWER	AUTO			
SIGNAL						89%	78.8 dBµV	
QUALITY						87%	16.6 dB	
LNB C.	40 mA	MER	15.1 dB	LINK M.	6.9 dB	bBER	1.1E-003	
OFFSET	962 KHz	MOD		8PSK 3/4		aBER	<1.00E-7	
F1 << W	'EST	EAST	[>>	F3 SCAN CI	HANNELS	ESC	EXIT	

<u>MER</u> (Modulation Error Rate) is a metric used to measure the performance of the digital modulation of the signal in the communication system. MER is measured between 0-20db to check the ideal level of the signal after effects such as noise, low aspect ratio, phase noise, carrier suppression, distortion, etc., in our DVB-S/S2 device.

<u>LINK MARGIN</u> It can be used to know when the Total power of the frequency crosses the saturation threshold. A signal needs a safety margin that exceeds the threshold for good reception; the Link margin must be greater than zero (0).

<u>bBER</u>: The Previous Bit Error rate indicates the proportion of uncorrected bits in the incoming signal. bBER should be at the lowest level.

<u>aBER</u>: Next Bit Error rate shows the proportion of bits in the incoming signal after correction. aBER should be at the lowest level.

 $\underline{\mathsf{LNB}\ \mathsf{CURRENT:}}$ You can see the current drawn by the LNB and Switches from the device in this box.

<u>OFFSET:</u> It indicates the frequency deviation when locking to the TP frequency.

<u>MODE</u>: The Modulation and FEC values will be displayed in this box when there is enough signal from the TP frequency.

You can check that the signal levels are at the highest values. You can use the RIGHT / LEFT buttons to change sequential satellites or transponders. TV Channel names will appear in the upper right corner when you catch the signal. You can touch this tile and see the Channel View. This allows you to check that you are on the right satellite. You can select channels from the left side once in the Show Channels menu.



You can enlarge the image by touching it and see both image and signal levels, AV bitrate rates and PID values on the same screen by pressing the LEVEL button.



DVB-S/S2 SPECTRUM ANALYSIS:

This mode shows the strength of signals in a specific frequency range and helps you visually identify abnormalities in the RF signal. Select the SPECTRUM ANALYSIS box from the DVB-S/S2 SIGNAL menu. The marker will start above the Tp IF frequency you measure. (If you enter directly from the Main Menu, You can touch the START box and switch to the spectrum screen.) after making your satellite, TP, LNB voltage and Diseq-c settings.



You can change the SPAN (frequency range) with the EDIT button on the spectrum screen or by using two fingers in the red area. If you enter the spectrum menu by selecting a frequency, you can see the selected TP frequencies and other TP frequencies of the same polarity in the red box. This allows you to control the entire TP frequency plan in the selected polarity.

You can slide the red marker triangle to the point you want to measure by touching your finger on the screen.



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory and re-install them with the same settings.

FIT: You can fit the Min/Max levels of the signals on the screen by touching this box so you can easily see the lowest and highest signals in the whole spectrum.



SETTINGS: This menu allows you to turn on/off the Tp Frequency Plan indicated by the blue bars. You can change the operating mode of the spectrum quickly and precisely. You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.



Firstly, select Diseqc 1.2 Motor from the DISEQC TYPE section of the Spectrum Analysis menu where you want to use the Diseq-C engine feature. You can see the SPECTRUM levels, and at the same time, you can manually rotate your Diseqc 1.2 Motor to EAST / WEST by pressing the EAST / WEST boxes.

DVB-S/S2 CONSTELLATION:

DVB-S/S2		LATION		13V 22K 💽 🖪 🖵 00:35 💽 21%
SATELLITE	1. Turksat 3	3A/4A (42	0° E)	DVB-S2 TRT World Radio
ТР	2. 11054-V	L-30000 (TRT)	
LNB	UNIVERSAL	_		
DISEQC	DISEQC 1.0		PORT A	
PWR	78.9 dBµV	C/N	16.8 dB	
bBER	1.0E-003	aBER	<1.00E-7	
MOD	8PSK 3/4	MER	15.2 dB	8PSK 3/4
F1 SPEC	CTRUM	F2	SIGNAL	F ³ SCAN CHANNELS ESC EXIT

The Constellation menu shows the accuracy of the coordinates of the Digital I/Q symbols received at any time in a graph. In this way, you can also understand the accuracy of the modulation (such as Qpsk, 8psk). You can see a collection of respectively 4 and 8 coordinate points for QPSK signals and eight coordinate points for 8psk signals in the Constellation diagram of the Tp Frequency you measure after touching the Constellation box from the DVB-S/S2 Signal menu. The closer this collection of coordinate points is to each other and in a narrower area, the accuracy will increase.

DVB-S/S2 SCAN CHANNEL:

DVB-S/S2 SCAN	CHANNELS	13V 22K 💽		0:35 21%
	SCAN METHOD	ALL TP		
	FREQUENCY			
	NETWORK	ΝΟ		
	CHANNELS	FREE + SCRAMBLED		
		START		
		E	SC	EXIT

Once you have optimized the signal levels, you can do a SCAN CHANNEL by touching the "Scan Channels" box.

You can perform scanning operations as SINGLE TP / ALL TP and BLIND SCAN, add the channels found to the CHANNEL LIST, and then monitor and measure from the channel list.

DVB-S/S2	SCAN CHANNELS	5		13V 22K		00:35
	TV CHANNELS 11 (0	New)		RADIO	CHANNELS	1 (0 New)
TRT TURK H				TRT World Radio		
TRT MUZIK H						
TRT KURDI H						
TRT BELGES						
TRT WORLD						
SIGNAL					92%	84.1 dBµV
QUALITY					88%	17.1 dB
PROGRESS	3/143	FREQ	119	58-VH-27500 (TRT)		DVB-S
LOCKED / WA	ITING NIT INFO				ESC	EXIT

DVB-S/S2 DUAL TP MEASUREMENT:

Select DVB-S/S2 by touching the DUAL TP CONTROL menu in the MENU. In the Multi-Level Control menu, the signal levels of one frequency from 2 different satellites at two different Diseq-C switch ends are displayed on the same screen. In this way, Monoblock Lnb, multiple Lnb connection apparatus installations or Multiswitch tests can be done very easily.

DVB-S/S2	DUAL TP		130	22K		0:30 19%
SAT-A	1. Turksat 3A/4	4A (42.0° E)	ТР-А	1. 12423-V	H-27500 (NIT FREQ)
SIGNAL					75%	75.4 dBµV
QUALITY					74%	12.2 dB
SAT-B	2. Hot Bird 13	B/C/E (13.0° E)	ТР-В	2. 11054-V	L-30000	
SIGNAL					78%	78.9 dBµV
QUALITY					87%	16.7 dB
F1	E2				FSC	
SIGNA	L TP-A	SIGNAL TP-B			ESU	EXIT

DVB-S/S2 MULTI-LEVEL MEASUREMENT:

Select MULTI-LEVEL CONTROL from the DVB-S/S2 MENU. The Multi-Level Control menu allows the signal levels of multiple TP frequencies to be displayed on the same screen at the same time.

DVB-S/S2 MULTI LEVEL				13V 22K	8 📼	00:30	18%
	ТҮРЕ	SINGLE					
	1. Turksat	3A/4A (42.0° E)				
	UNIVERSA	۸L					
	DISEQC A	DISEQC 1.	.0				
	PORT A	PORT A					
		STA	ART				
F1 SINGLE	F2 DUAL				ESC	EXIT	

<u>SINGLE SATELLITE CONTROL</u>: Select SINGLE as the type and touch START after making the necessary SATELLITE settings. As shown in the screen below, the signal levels of 4 different frequencies from 1 satellite can be seen on the same screen. This allows you to check that the signal levels and antenna tuning are correct at all frequencies. You can look at the ports of the Quattro LNbs that supply the multiswitches one by one.

DVB-S/	S2 MULTI LEV	/EL				13	3V 22K 💽	8 🛡	00	:30 17%
87 74	Turksat 3A/4A 11054-VL-30000 TRT	89	87	Turksat 3A/4A 12423-VH-27500 NIT FREQ	92	88	Turksat 3A/4A 11053-HL-8000 HABERTURK	93	81	Turksat 3A/4A 12054-HH-27500 (90DDA122-D72A-4 4F4-8716-F597139 7DE05)
3 4	DVB-S	Ľ	v	SEARCHING	<u> </u>	<u>م</u>	DVB-S	`	्य	DVB-S
								ESC		EXIT

DVB-S/S2 M	IULTI LEVE		13V 22	K	🗉 📟 00:30 🚺	19%	
		ТҮРЕ	DUAL				
SATELLITE A	1. Turksat 3	3A/4A (42.0° E)		SATELLITE B	2. Hot Bird	13B/C/E (13.0°	E)
LNB A	UNIVERSAL			LNB B	UNIVERSA	۱L	
DISEQC A	DISEQC 1.0			DISEQC B	DISEQC 1.	0	
PORT A	PORT A			PORT B	PORT B		
			ST/	ART			
^{F1} SINGL	.E	⁻² DUAL	_			ESC EXIT	

<u>DUAL SATELLITE CONTROL</u>: Select DUAL as the type and touch the START box after making the necessary SATELLITE settings. As shown in the screen below, the signal levels of 8 different frequencies from 2 satellites can be seen on the same screen.

DVB-S/S2 MULTI LEVEL		13V 22K 💽	100 📟 🗉	30 17%
87 71 Turksat 3A/4A 11054-VL-30000 TRT S Q DVB-S S	87 Turksat 3A/4A 12423-VH-27500 NIT FREQ Q DVB-S2	92 88 Turksat 3A/4A 11053-HL-8000 HABERTURK S Q DVB-S	93 80	Turksat 3A/4A 12054-HH-27500 {90DDA122-D72A-4 4F4-8716-F597139 7DE05} DVB-S
90 77 Hot Bird 13B/C/E 92 10949-VL-27500 Polsat Box S Q DVB-S S	79Hot Bird 13B/C/E12418-VH-29900Sky ItaliaQDVB-S2	87 68 Hot Bird 13B/C/E 11179-HL-27500 Telespazio S Q SEARCHING	94 87 5 Q	Hot Bird 13B/C/E 12015-HH-27500 Polsat Box DVB-S
			ESC	EXIT

You can test the accuracy of Multiswitch and System assemblies by seeing all frequencies on the same screen. The device will sort the TPs on all satellites according to their VL/VH/HL/HL/HH polarity. This allows you to check the accuracy of 8 cables from 2 satellites in multiswitches.

DVB-S	S/S2 TABLE SEARCH		18V 22	K 💽 🗉 📟	00:25 16%
ТР	FREQUENCY	POWER	MER	bBER	aBER
7	12380-VH-27500	75.1 dBµV	10.3 dB	1.5E-003	<1.00E-7
8	11977-HH-27500	88.9 dBµV	15.0 dB	<1.00E-7	<1.00E-7
9	12034-VH-27500	82.2 dBµV	12.9 dB	<1.00E-7	<1.00E-7
10	12095-HH-4800	79.0 dBµV	11.7 dB	<1.00E-7	1.9E+002
11	12103-HH-8333	80.9 dBµV	12.5 dB	1.2E-002	1.2E-004
12	12346-HH-9600	78.8 dBµV	9.4 dB	2.6E-003	<1.00E-7
13	12336-HH-5520	76.4 dBµV	10.2 dB	<1.00E-7	1.9E+002
14	12329-HH-6666	77.2 dBµV	12.0 dB	<1.00E-7	1.9E+000
15	12015-HH-27500			SEARCHING	
	SEARCH	NG TP 15/143 - 10	0%	ESC	STOP

DVB-S/S2 TABLE MEASUREMENT:

You can check the signal values of all TPs of the satellite you have selected by using the TABLE MEASUREMENT menu when you have completed the antenna installation or when you go to service the subscriber.

DVB-	S/S2 TABLE SEA	ARCH	13V 2	22K 💽 🖪 🛡	00:25 16%
ТР	FREQUENCY	POWER	MER	bBER	aBER
1	12423-VH-2750	00 75.6 dBμV	11.2 dB	7.6E-005	<1.00E-7
2	11054-VL-3000	00 79.0 dBµV	15.1 dB	1.1E-003	<1.00E-7
3	11958-VH-2750	00 84.5 dBµV	15.5 dB	<1.00E-7	<1.00E-7
4	12054-HH-275	00 86.8 dBµV	12.6 dB	<1.00E-7	<1.00E-7
5	12219-HH-650	00 81.0 dBµV	11.6 dB	<1.00E-7	1.9E+002
6	12209-HH-100	00 84.0 dBµV	11.7 dB	1.3E-002	8.2E-005
7	12380-VH-2750	00 75.1 dBμV	10.3 dB	1.5E-003	<1.00E-7
8	11977-HH-275	00 88.9 dBµV	15.0 dB	<1.00E-7	<1.00E-7
9	12034-VH-2750	00 82.2 dBμV	12.9 dB	<1.00E-7	<1.00E-7
F1	RESTART	F2 SAVE TO USB		ESC	EXIT

You can see which TP has the problem and compare the frequencies with each other. You will see the tables in the pictures after all TPs have been scanned. You can save the entire table to USB and store the measurement with the "SAVE TO USB" button after all operations are finished.

DVB-S/S2 CROSS POLARITY:

DVB-S/S2	CROSS POLARITY	18V	22K	•	00:20 13%
SATELLITE	1. Turksat 3A/4A (42.0° E)	DISEQC	DISEQC 1.0		
ТР	3. 11958-VH-27500 (TRT)	PORT	PORT A		
LNB	UNIVERSAL	POWER	AUTO		
VER				90%	81.0 dBµV
HOR				70%	55.1 dBµV
				ESC	EXIT

The purpose of this menu is to adjust the LNB according to the signal level at the opposite polarity of the selected frequency. We set it so that the top signal level is the highest. If the signal at the bottom moves in the same direction as the signal at the top, both should be set to the highest or if it moves in the opposite direction, the upper signal should be set to the highest and the lower signal to the lowest.

DVB-S/S2 AUTO PORT SCAN:

DVB-S/S2 AUTO PORT SCAN		AN	13V 22K		0:20	13%
	DISEC	QC MODE	DISEQC 1.0			
			START			
PORT A	Turksat 3A/4A (42.	0° E)				
PORT B	Hot Bird 13B/C/E (13.0° E)				
PORT C	SCANNING SAT 1	TP 1				
PORT D						
				ESC	EXIT	

We can see which satellite the Dish Antenna is facing or which satellites are connected to which ports of our Diseq-C Switch. This way, you don't have to go near the antenna or find cables. Diseq-C 1.0 and Diseq-C 1.1 protocols are installed and ready to use inside your device. You can use it in all 4 and 8 Diseq-C switches.

DVB-S/S2 CHANNEL LIST

DVB-S/S2 CHANNEL LIST		13V	22K		00:20	12%
Turksat 3A/4A TV (125)	TRT4K	1. Same	At 13			
1 TRT 4K				de ta		
2 HALK TV						for a
3 GONCA TV						
4 TRT COCUK HD			and an	- And and a state of the state	Carles	N. N. S.
5 TRT1 HD		20.	N. Cat	Steg.	- And	
6 TRT HABER HD	DÖRTYOL		-	1 M		
7 TRT SPOR HD	LCN	SID	VPID	APID	PCR	PMT
8 TRT TURK HD	Video	H.265	Audio	EAC3	4833 4K - 38	4733 40x2160
F1 EDIT				ESC	EXIT	

DVB-S/S2 can be displayed by touching the CHANNEL LIST from the MENU. You can select, delete, and relocate TV and Radio channels individually or by satellite name in the Channel List menu. You can select channels from the left side. You can enlarge the image by touching it and pressing the LEVEL button to see both the image and the Signal levels, AV bitrate rates and PID values on the same screen.

DVB-S/S2 CHANNE	L LIST 13V 22K 💽	8 🖵 00:15 🚺 12%
Turksat 3A/4A	SELECT SATELLITE	
1 TRT 4K		
2 HALK TV	2 Turksat 3A/4A (42.0° E)	
3 GONCA TV	3 Hot Bird 13B/C/E (13.0° E)	
5 TRT1 HD	4 Eutelsat 7A/B (7.0° E)	
6 TRT HABER HD	5 DMDU Turksat 42E (42.0° E)	
7 TRT SPOR HD	6 Astra 1KR/L/M/N (19.2° E)	PCR PMT 4855 4755
8 TRT TURK HD	7 Eutelsat 9B/9A (9.0° E)	4K - 3840x2160
F1 EDIT		^{ESC} EXIT

SORTING BY SATELLITE: Press the MENU button or touch the Satellite after entering the CHANNEL LIST menu and select SATELLITE from the display. In this case, only the channels of the satellite you have selected will be displayed. You can see the list of radio channels on the screen with the TV / RADIO button.

DVB-S/S2 CHANNEL LIST		13V	22K		00:15	10%
Turksat 3A/4A TV (125)	TRT4K	Carlos	10			
1 TRT 4K 🏲				and a		
2 HALK TV				and the second		1 and
3 GONCA TV				AND NUMBER		P L DA
4 TRT COCUK HD						
5 TRT1 HD		804	A Cot	See.co	- North	Res la construction de la constr
6 TRT HABER HD	DÖRTVOL	A	A A	199		
7 TRT SPOR HD		SID 16300	VPID 4855	APID 4955	PCR 4855	PMT 4755
8 TRT TURK HD	Video	H.265	Audio	EAC3	4K - 38	40x2160
^{F1} RENAME ^{F2} DELET	F3	M	OVE	ESC	CANCEL E	DIT

You can touch on the EDIT box and then perform the CHANGE NAME / DELETE CHANNEL and MOVE CHANNEL process.



You can enter the number of the new position to move the channels to when you touch on a Channel or touch all the channels you want to move in BULK and press the MOVE box. Single channel and batch channels will be transferred to the new position, respectively.

INSTRUCTION FOR USE ON DVB-T/T2/ANALOGUE TERRESTRIAL TV MEASUREMENT:

Enter the DVB-T/T2 menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad.



DVB-T/T2 SETTINGS:

DVB-T/T2	SETTINGS	OFF 22K	СНС СНС
	6		
	Power Unit	dBμV	
	Power Calibration		0.0 dB
	TV System	В	
	Antenna Power	OFF	
	Min RF Level	40.	0 dBµV
	Max RF Level	80.	0 dBµV
	Min MER		25.0 dB
		ESC	EXIT

<u>Power Unit:</u> You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration</u>: The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, calibrate the levels closer to the correct level by changing this value to plus + or minus -.

Antenna Power: You can supply your Line Amplifier by selecting Off / 5V / 12V / 20V.

<u>Min RF Level</u>: If this is less than the RF level value when measuring the signal, the correct installation is not confirmed.

<u>Max RF Level</u>: If the RF signal level you set is higher than this value, it may damage the system or prevent correct distribution.

DVB-T/T2	SETTINGS	OFF 22K 💽 🖪 🛡 CHG	CHG
	Max RF Level	80.0 dBµV	
	Min MER	25.0 dB	
	Max BER	1.XXE-1	
	Channel Scan LCN	OFF	
	CHANNELS	2 DELETE ALL CHANNELS	
		Restore Factory Defaults	
		ESC EX	хіт

<u>Min MER:</u> When the MER value drops below this level, the device will not confirm that the installation was done correctly.

Max BER: You can choose how much the Bit Error Rate data rate can be.

<u>LCN Scanning</u>: The device sorts the Channel assignment on the scanned platform frequencies according to the LCN (logic channel number) value.

DELETE ALL CHANNELS: It deletes all channels in the DVB-T/T2 menu.

<u>Factory Reset:</u> It restores all database information in the DVB-T/T2 menu to factory settings.

DVB-T/T2 FREQUENCY PLAN:

DVB-T/T2	FREQUENCY PLAN		OFF 22K •	8 🛡 CH	IG CHG		
	c						
	Active Plan	Turkey Plan (All)					
		View / Edit Pla	IN				
	Rename Plan						
		Reset Plan					
		Scan Channel	S				
				ESC	EXIT		

Your device can store dozens of Frequency Plans for each system in its memory to be used in your own installations or operator deployments.
DVI	B-T/T	2 FREQUEN	CY PLAN		C)FF 22	K	🗉 📟 Снд 🔜 (CHG
	TURKEY PLAN (ALL)					POS	ITION	1	
	1	DTV21	DVB-T/T2	474.	00 MHz	СНА	NNEL	DTV21	
	2	DTV22	DVB-T/T2	482.	00 MHz				
	3	DTV23	DVB-T/T2	490.	00 MHz	DESCRIPTION		DTV21	
	4	DTV24	DVB-T/T2	498.	00 MHz	SYS ⁻	ГЕМ	DVB-T/T2	
	5	DTV25	DVB-T/T2	506.	00 MHz	FREG	QUENCY	474.00	MHz
	6	DTV26	DVB-T/T2	514.	00 MHz	BAN	DWIDTH	8.0	MHz
	7	DTV27	DVB-T/T2	522.	00 MHz				
	~	DT (00		500	~~ • • • •				
F1	NE	W FREQ	F2 DELETE F	REQ				ESC BACK	

You can manually change these frequency plans on the device or via a PC program. You can access all parameters such as Frequency, BW, and TV system for each frequency.

DVB-T/T	2 FREQ	UENCY F	PLAN						снд	CHG
	Activ	PLAN N Turkey	JAME Plan (All)					ок		
				Rer	name Plan					
										Ŷ
Q	W^{2}	E	R	T	Y	U	8	9 0	P	×
А	S	D	F	G	Н	J	К	L		0
<u> </u>	Z	Х	С	V	В	Ν	М	!	?	+
?123	,									٢

You can assign names for your frequency plans or reset them completely.

<u>Scan Channels</u>: You can search for TV channels suitable for your frequency plan in the DVB-T/T2 band. You can then monitor and measure these channels.

DVB-T/T2 SCAN	CHANNELS		OFF 22K		СНБ СНБ
	SCAN METHOD	SINGLE FREQ			
	FREQUENCY	DTV60 (DVB 78	6.00 MHz)		
	NETWORK	YES			
	CHANNELS	FREE + SCRAM	BLED		
		START			
				ESC	EXIT

SCAN MODE: You can scan in 2 modes as SINGLE FREQUENCY / ALL PLAN.

FREQUENCY: You can select which frequency to scan when scanning Single Frequency.

SCAN NETWORK: The NIT scan network for operators allows you to scan all frequencies.

CHANNELS: You can scan and memorize channels in 3 modes: UNENCODED / ENCRYPTED / ENCRYPTED + ENCRYPTED.

DVB-T/T2	SCAN CHANNELS		OFF 22K		CHG CHG			
	TV CHANNELS 1 (1 N	lew)	RADIO CH	RADIO CHANNELS 0 (0 New)				
AIR_CH_786	_8M							
SIGNAL				85%	70.1 dBµV			
QUALITY				99%	20.0 dB			
PROGRESS	1/1	FREQ	OTV60 (DVB 786.00 MHz)		DVB-T			
SCAN COMPL	.ETTE			ESC	EXIT			

You can then start the scan channel process by touching the START box. In the scan channel screen, you can see which frequencies you scan and the signal values. It will show the newly found channels in white colour on the screen.

DVB-T/T2 SIGNAL MEASUREMENT :

DVB-T/T2 MENU		OFF 22K •	8 🛡 02:10 🚺 63%
terr. signal	SPECTRUM	CONSTELLATION	
TABLE SEARCH	CHANNEL LIST	FREQUENCY PLAN	DVB-T/T2 SETTINGS
PLAN: Turkey Plan (All) / 113 Fre	equencies		ESC MAIN MENU

Your AS07STCA-4K is capable of measuring DVB-T/T2 analogue and digital signals. It can also show SD-HD-FHD-4K TV channels.

First, DVB-T/T2 or ATV+ DVB-T/T2 system must be selected when you enter the signal measurement menu.

DVB-T/T2 SIGNAL	OFF 22K •	1 💭 02:00 🔲 59%
SYSTEM AT	SYSTEM	100
CHANNEL	1 ATV	
FREQUENCY	2 DVB-T/T2	
AUDIO FREQ.	3 ATV + DVB-T/T2	
VIDEO LEVEL		
AUDIO LEVEL		10 Α 50.8 dBμV
Δ V/A 11.1 dB		,
F1 SPECTRUM	CONSTELLATION F3 CHANNEL VIEW	ESC EXIT

SYSTEM: You can select ANALOGUE TV / DVB-T/T2 / ATV+DTV separately or ATV+DTV together in the frequency plan. This will display the frequencies of this system on the screen. It will make your installations faster.

You can select the frequency you want to tune your Digital Terrestrial antenna or check the signal levels and see the signal values on the screen. You can quickly switch to other measurement menus related to the frequency you have measured from the SPECTRUM, CONSTELLATION and CHANNEL SEARCH boxes at the bottom. Detailed information on Spectrum Analysis and Constellation properties will be given on the following pages.

DVB-T/T	2 SIGN	۹L				OFF 22K	8 🖤 02:00 📕	58%
SYSTEM DVB			T/T2					
CHANNEL		[DTV60 (DVE	3 786.00 MHz)				45 ···· 40 ···
FREQUENCY			786.00 MHz					35 30
BANDWID	BANDWIDTH		8.0 MHz					
MOD COD)E	DVB-T QAM-16 7/8						
bBER	2.4E-	004	aBER	<1.00E-7		RF 70.5 dBµV	MER 30.4 dB	
TS Rate	21112 K	bps	LINK M.	17.9 dB	PASS		AIR_CH_786_8M	
F1 SPECTRUM			F2 CONS	TELLATION	^{F3} SCA	N CHANNELS	^{ESC} EXIT	

<u>CHANNEL</u>: You can select the channel you want to measure in the frequency plan by touching the box.

<u>FREQUENCY</u>: You can see the frequency you measure. You can change it with the EDIT button.

BANDWIDTH: You can select 1.7/5.0/6.0/6.0/7.0/8.0Mhz for DVB-T/T2.

<u>MOD CODE:</u> You can see in which mode and code rate you receive the DVB-T or T2 system after the signal is locked.

<u>bBER / aBER</u>: BER should be at the lowest level, which indicates the number of errors before or after correction.

<u>TS Rate:</u> It shows the bitrate of the channel after the signal has been locked.

<u>LINK Margin</u>: It can be used to know when the Total power of the frequency crosses the saturation threshold. A signal needs a safety margin that exceeds the threshold for good reception; the Link margin must be greater than zero (0).

<u>RF:</u> You can see the RF level with the red bar.

MER: You can see the MER rate with the green coloured bar.

Enter the parameters of the frequency you want to measure; the coloured bold bars on the right side of the screen visually show the signal levels. Signal level values are indicated by numbers below the bars. You can see if the bars are within the Max and Min values you select from the settings menu by looking at the green area. You can also see the frequency parameters and signal values, such as MODULATION, BER, and MER, on the left side of the screen. A NOT LOCKED warning will appear in case the signal values are insufficient, and a LOCKED warning will appear in case the signal values are appropriate in the box in the lower right corner. The Channel names will appear in the LOWER LEFT bar if the signal levels are appropriate. You can see the channel names at the frequency you have measured by touching this box.

<u>SEARCH CHANNEL and SAVE TO CHANNEL LIST</u>: Press the "SEARCH CHANNEL " box in the lower right section on a frequency where you are sure that the signal levels are suitable. You can browse using the UNENCRYPTED, ENCRYPTED or both options on the SEARCH CHANNEL screen. The channels you have scanned are found, and then the information screen appears on the screen and the channels are saved to the list. (You can access Radio channels by pressing the TV/RADIO button.)



TERRESTRIAL ANALOGUE SIGNAL MEASUREMENT:

You can select the parameters of the frequency you want to measure on this screen. Then, you can see the difference between respectively the Channel Name, Video Frequency, Audio Frequency, Video Power, Audio Power, and Δ VIDEO/AUDIO in dB. You can visually speed up your measurement with signal strength bars changing according to the level in red for Video Frequency power and in green for audio frequency power on the right side of the screen. You can see if the Video Level Power bar and Audio Level Power bar are within the Max and Min values you select from the settings menu by looking at the green area. An ERROR warning will appear in case the signal values are insufficient, and a CONFIRMED sign will appear in case the signal values are appropriate in the box in the lower right corner. Note: You can quickly switch to other measurement menus related to the frequency you have measured from the SPECTRUM box at the bottom. Detailed information about Spectrum Analysis properties will be given in the following pages.



You can see the Analogue TV channels by touching the SHOW CHANNEL box at the bottom right after locking to the frequency. While watching Analogue TV channels, no menu function works; you can only exit Analogue TV with the ESC button.



You can see the spectrum of a terrestrial analogue TV channel on the screen above. You can access the Video-Audio-Colour spectrum detail of the channel you have measured by touching the Spectrum Box on the signal measurement screen.

	System Signal Characteristics									
	Channel Space (MHz)	Video Mod. Type	Sound Mod. Type	Sideband Space (MHz)						
B (VHF)	7	AM	FM	0.75						
D	8	AM	FM	0.75						
G (UHF)	8	AM	FM	0.75						
н	8	AM	FM	1.25						
I	8	AM	FM	1.25						
К	8	AM	FM	0.75						
K1 (K')	8	AM	FM	1.25						
L	8	AM	AM	1.25						
М	6	AM	FM	0.75						
N	6	AM	FM	0.75						

Table About Analogue TV Systems:

Note: Blue-marked areas on the top of the spectrum screen show Analogue TV channel names and green-marked areas show DTV names.



DVB-T/T2 SPECTRUM ANALYSIS:

The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when the DIGITAL SPECTRUM ANALYSIS measurement mode is switched. You can see the names of the channels in the green boxes at the top. You can see the Band Peak Power on the marker, and you can also see the instantaneous power of the marker line on the bottom left.



The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when performing ANALOGUE SPECTRUM ANALYSIS measurement. You can see the following information on the screen according to the frequency plan we have previously selected.

- 1. Channel Names: You can see the channel names inside the blue boxes, and these boxes are the bandwidth of that channel.
- 2. The marker on the video carrier of the channel you want to measure shows the RF level.
- 3. It is the video carrier within the band.
- 4. It is the sound carrier in the band.
- 5. You can change the frequency range (span) by placing two fingers on the red field.

FIT: You can fit the Min/Max levels of the signals on the screen by touching this box so you can easily see the lowest and highest signals in the whole spectrum.



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory and re-install them with the same settings.



SETTINGS: This menu allows you to change the Tp Frequency Plan shown with blue bars to OFF/DIGITAL/ANALOGUE/DIG+ANA. This allows you to restrict the transmitting system you want to appear on the screen. You can change the operating mode of the spectrum quickly and precisely.

You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.

DVB-T/T2 CONSTELLATION DIAGRAM :

DVB-T/T2 CONS	CHG 💽 CHG			
CHANNEL	DTV60 (DVB 786.00 MHz)			
FREQUENCY	786.00 MHz	- Ju- 3	* 🔆 👘	
BANDWIDTH	8.0 MHz		en 🐐 🕷 👝	
POWER	69.7 dBµV		al also all in	
MER	20.0 dB	· · · · · ·		
bBER	1.2E-004	DVB-T QAM-16 7/8		
aBER	<1.00E-7	DVB-T	AIR_CH_786_8M	
^{F1} SPECTRUM	F2 SIGNAL	F ³ SCAN CHANNELS	^{ESC} EXIT	

The constellation diagram shows in a graph the accuracy of the coordinates of the Digital I/Q symbols received at any given time. The colour scale, placed on the right side, provides a qualitative indication of the signal quality by grading the colours in proportion to the intensity of the dots concentrated in a particular area. The colour scale ranges from black (no symbol) to red (highest intensity).

A more extensive distribution of symbols indicates a higher noise level or worse signal quality. If there is a concentration of symbols relative to the full grid, the closer the collection of coordinate points is to each other and in a narrower area (see the advanced menu for grid types), this indicates a good signal-to-noise ratio or no problem.

These symbols are encoded with QPSK, 16-QAM or 64-QAM modulation techniques as in the pictures determined according to the modulation types. You can see both constellation and other signal parameters and make fast and reliable measurements on this screen.

DVB-T/T2 CONS	TELLATION	i	OFF	22K	3 6				ŞA	RJ	ŞARJ
CHANNEL	DTV55 (DVB 746.00 MHz)										
FREQUENCY	746.00 MHz					*	*	*	.*	8	
BANDWIDTH	8.0 MHz		- - -						*	18 81 14	
POWER	64.8 dBµV		-	*						*	
MER	38.5 dB					*	×		78 26		
bBER	3.7E-004			0	VB-	T Q <i>i</i>	AM-6	54 3	/4		
aBER	<1.00E-7		DVB-T				ALP1				
F1 SPECTRUM	F2 SIGNAL	^{F3} SCA	AN CH	IAN	NELS	5	ES	C		EXIT	

OFF 22K **DVB-T TILT LIMIT** dBµV 64.2 64.5 63.0 63.6 63.2 62.6 62.9 61.8 60.9 60.7 60 57.5 52.8 50 40 30 20 MHz 182.25 189.25 196.25 203.25 224.25 474.00 482.00 490.00 498.00 506.00 514.00 530.00

DVB-T/T2 TILT-LIMIT MEASUREMENT :

Tilt/Limit list testing is an effective solution to check the regularity of the cable system and further attenuation of the wave at high frequencies. AS07STCA can get the levels of 12 channels and easily observe the measurement result and graph. You can select the first six frequency starts of the group and the last six frequencies from the end of the group. You can then check the slope of the group and arrange the amplifiers and elements in the cable line according to this slope.

EXIT

DVB-T/T2 TABLE MEASUREMENT:

Band Power Delta 7.3 dB



The AS07STC utilizes the channel scan function to quickly test the regularity and gain of the DVB-T/T2 system. You can select the start and end frequencies with the step range, and you can scan the signals in the whole band with one of the bandwidths 1.7-5-6-7-8mhz. You can check the signal values of all TPs using the TABLE MEASUREMENT menu when you have completed the system setup or when you go to service the subscriber. Terrestrial TV antennas may have active amplifiers; in this case, you may need to select 5V,12V, or 20V supply voltage.

DVB-1	/T2 TABLE S	EARCH		OFF 22K		CHG CHG
#	FREQ.	SYSTEM	BW / AC	POWER	MER / APow	MOD / Δ
1	746.00 MHz	DVB-T	8.0 MHz	64.9 dBµV	20.0 dB)VB-T QAM-64 3/4
2	786.00 MHz	DVB-T	8.0 MHz	69.7 dBµV	20.0 dB)VB-T QAM-16 7/8
SCA	N COMPLETTED	^{F1} SAVE	E & EXIT	F2 SAVE TO U	SB ESC	EXIT

You can see which channel has a problem and compare frequencies. You will see the tables in the pictures after scanning all frequencies. You can save the entire table to USB with the "SAVE TO USB" button and save the measurement to the frequency plan used after all operations are finished.

DVB-T/T2 CHANNEL LIST :



You can bring it to the screen by touching the CHANNEL LIST from the DVB-T/T2 MENU. You can select, delete, and relocate individual TV and Radio channels in the Channel List menu. You can select channels from the left side. You can see the list of radio channels on the screen with the TV / RADIO button.



You can touch on the EDIT box and then perform the CHANGE NAME / DELETE CHANNEL and MOVE CHANNEL process. You can enter the number of the new position to move the channels to when you touch on a Channel or touch all the channels you want to move in BULK and press the MOVE box. Single channel and batch channels will be transferred to the new position, respectively.



You can enlarge the image by touching it and pressing the LEVEL button to see both the image and the Signal levels, AV bitrate rates and PID values on the same screen.

INSTRUCTIONS FOR USE ON DVB-C/ANALOGUE CABLE TV MEASUREMENT:

Enter the DVB-C menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad.

STCA MAIN MENU		0FF 22K	OFF 22K 💽 🖪 🛡 03:20 🔲 100%			
DV35/52 DVB-S/S2	DVBC DVB-C	DVB-T/T2	SETTINGS			
]].83B	ISDB-T				
AHD / TVI / CVI	HDMI IN	HDMI OUT				

DVB-C SETTINGS:

DVB-C SE	TTINGS	OFF 22K 💽 🖪 🛡 02:20	69%
	~		
	Power Unit	dΒμV	
	Power Calibration	0.0 dB	
	TV System	В	
	Min RF Level	40.0 dBµV	
	Max RF Level	80.0 dBµV	
	Min MER	25.0 dB	
	Max BER	1.XXE-1	
		ESC EX	кіт

Power Unit: You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration</u>: The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, calibrate the levels closer to the correct level by changing this value to plus + or minus -.

<u>Min RF Level</u>: If this is less than the RF level value when measuring the signal, the correct installation is not confirmed.

<u>Max RF Level</u>: If the RF signal level you set is higher than this value, it may damage the system or prevent correct distribution.

<u>Min MER:</u> When the MER value drops below this level, the device will not confirm that the installation was done correctly.

DVB-C SE	TTINGS	OFF 22K 💽 🖪 🖵 02:2	0 69%				
	Max RF Level	80.0 dBµV					
	Min MER	25.0 dB					
	Max BER	1.XXE-1					
	Channel Scan LCN	OFF					
	CHANNELS	19 DELETE ALL CHANNELS					
Restore Factory Defaults							
		ESC	EXIT				

Max BER: You can choose how much the Bit Error Rate data rate can be.

<u>LCN Scanning</u>: The device sorts the Channel assignment on the scanned platform frequencies according to the LCN (logic channel number) value.

DELETE ALL CHANNELS: It deletes all channels in the DVB-C menu.

Factory Reset: It restores all database information in the DVB-C menu to factory settings.

DVB-C FREQUENCY PLAN:

DVB-C FRI	EQUENCY PLAN		OFF 22K •)2:25 72%			
	Active Plan	CATV Turkey Pla	n					
		View / Edit Pl	an					
	Rename Plan							
	Reset Plan							
		Scan Channe	ls					
				ESC	EXIT			

Your device can store dozens of Frequency Plans for each system in its memory to be used in your own installations or operator deployments.

DVE	B-C F	REQUENCY	SETTINGS		0	FF 22K 💽	02:25 70%
		CA	TV TURKEY PLAN			POSITION	1
	1	S-20	DVB-C	298.00 M	Hz	CHANNEL	S-20
	2	S-21	DVB-C	306.00 M	Hz		
	3	S-22	DVB-C	314.00 M	Hz	DESCRIPTIO	N S-20
	4	S-23	DVB-C	322.00 M	Hz	SYSTEM	DVB-C
	5	S-24	DVB-C	330.00 M	Hz	FREQUENCY	298.00 MHz
	6	S-25	DVB-C	338.00 M	Hz	BANDWIDTH	8.0 MHz
	7	S-26	DVB-C	346.00 M	Hz		
	-	0.07		054001			
F1	NE	W FREQ	F2 DELETE FF	REQ			ESC BACK

You can manually change these frequency plans on the device or via a PC program. You can access all parameters such as Frequency, BW, TV, and system for each frequency.



You can assign names and change parameters for your frequency plans. You can create your own plan.

DVB-C SCAN CH	ANNELS		OFF 22K	• 8 •	02:25 71%
	SCAN METHOD	ALL PLAN SCAN	I		
	FREQUENCY				
	NETWORK	NO			
	CHANNELS	FREE + SCRAME	BLED		
		START			-
				ESC	EXIT

You can then start the scan channel process by touching the START box. In the scan channel screen, you can see which frequencies you scan and the signal values. It will show the newly found channels in white colour on the screen.

DVB-C SCA	N CHANNELS		OFF 221	K 💽	8 🛡	03:15 98%
1	TV CHANNELS 5 (5 M	New)	RAD	IO CHAN	NELS 0	(0 New)
TV 4 HD		\$				
KRT TV HD		\$				
HISTORY HD		\$				
BBC EARTH H	ID	\$				
BBC FIRST H	D	\$				ļ
SIGNAL				7	/5%	57.8 dBµV
QUALITY				9	9%	20.0 dB
PROGRESS	1/1	FREQ	S-20 (DVB 298.00 M	Hz)		DVB-C
SCAN COMPLE	ETTE				ESC	EXIT

<u>Scan Channels</u>: You can search for TV Channels suitable for your frequency plan in the DVB-C band. You can then monitor and measure these channels.

SCAN MODE: You can scan in 2 modes as SINGLE FREQUENCY / ALL PLAN.

FREQUENCY: You can select which frequency to scan when scanning Single Frequency.

SCAN NETWORK: The NIT scan network for operators allows you to scan all frequencies.

CHANNELS: You can scan and memorize channels in 3 modes: UNENCODED / ENCRYPTED / ENCRYPTED + ENCRYPTED.

DVB-C SIGNAL MEASUREMENT:

Your AS07STCA-4K is capable of measuring DVB-C analogue and digital signals. It can also show SD-HD-FHD-4K TV channels.

DVB-C SIGNAL			🛛 🖪 🖃 (03:10)	100%
SYSTEM	SYSTEM			
CHANNEL	1 CATV			
FREQUENCY	2 DVB-C			
AUDIO FREQ.	3 CATV + DVB-C			
VIDEO LEVEL				
AUDIO LEVEL			A 51.4 dBµV	
Δ V/A 11.1 dB			6	
F1 SPECTRUM		CHANNEL VIEW	ESC EXIT	

First, an Analogue CATV / Digital DVB-C or ATV+DVB-C system must be selected when entering the signal measurement menu. You can select the frequency you want to measure the Digital Cable TV signal or look at the signal levels and see the signal values on the screen. You can quickly switch to other measurement menus related to the frequency you have measured from the SPECTRUM, CONSTELLATION and CHANNEL SEARCH boxes at the bottom. Detailed information on Spectrum Analysis and Constellation properties will be given on the following pages.

DVB-C SIGNAL		OFF 22K	8 📟 03:15 🔜 100%
SYSTEM	DVB-C		
CHANNEL	CH-28 (DVB 530.00 MHz)		
FREQUENCY	530.00 MHz		
BANDWIDTH	8.0 MHz		
bBER	<1.00E-7		
PER	<1.00E-7	10 0 RF 62.3 dBµV	5 MER 35.2 dB
MOD 256-0	DAM LINK M. 5.1 dB	PASS	T3 SPOR - TBMM TV HD
F1 SPECTRUM	F2 CONSTELLATION	F3 SCAN CHANNELS	ESC EXIT

<u>SYSTEM</u>: It can be selected as ANALOGUE TV / DVB-C separately or ATV+DTV together in the frequency plan. This will display the frequencies of this system on the screen. It will make your installations faster.

<u>CHANNEL</u>: You can select the channel you want to measure in the frequency plan by touching the box.

<u>FREQUENCY</u>: You can see the frequency you measure. You can change it with the EDIT button.

BANDWIDTH: You can select 6.0/7.0/8.0Mhz for DVB-C.

 $\underline{\text{MODE:}}$ Once the signal is locked, you can see in which mode the DVB-C system is transmitting.

<u>bBER / PER</u>: BER should be at the lowest level, which indicates the number of errors before or after correction.

<u>LINK Margin</u>: It can be used to know when the Total power of the frequency crosses the saturation threshold. A signal needs a safety margin that exceeds the threshold for good reception; the Link margin must be greater than zero (0).

<u>RF:</u> You can see the RF level with the red bar.

MER: You can see the MER rate with the green coloured bar.

Enter the parameters of the frequency you want to measure; the coloured bold bars on the right side of the screen visually show the signal levels. Signal level values are indicated by numbers below the bars. You can see if the bars are within the Max and Min values you select from the settings menu by looking at the green area. You can also see the frequency parameters and signal values, such as MODULATION, BER, and MER, on the left side of the screen. A NOT LOCKED warning will appear in case the signal values are insufficient, and a LOCKED warning will appear in case the signal values are appropriate in the box in the lower right corner. If the signal levels are appropriate, the Channel names will appear in the LOWER LEFT bar. You can see the channel names at the frequency you have measured by touching this box.

<u>SEARCH CHANNEL and SAVE TO CHANNEL LIST:</u> Press the "SEARCH CHANNEL " box in the lower right section on a frequency where you are sure that the signal levels are suitable. You can browse using the UNENCRYPTED, ENCRYPTED or both options on the SEARCH CHANNEL screen. The channels you have scanned are found, and then the information screen appears on the screen, and the channels are saved to the list. (You can access Radio channels by pressing TV/RADIO button).

ANALOGUE CABLE TV SIGNAL MEASUREMENT:

DVB-C SIGNAL		OFF 22K 💿	03:10 100%				
SYSTEM	CATV						
CHANNEL	E-05 (ATV 175.25 MHz)	90					
FREQUENCY	175.25 MHz						
AUDIO FREQ.	5.50 MHz		50				
VIDEO LEVEL	64.1 dBµV						
AUDIO LEVEL	51.4 dBµV	10 V 64.1 dBμV	10 Α 51.4 dBμV				
Δ V/Α 12.	7 dB C/N 42.7 dB	B PASS					
^{F1} SPECTRUM	F2 CONSTELLATION	F3 CHANNEL VIEW	ESC EXIT				

Let's select CATV ANALOGUE from the system. You can select the parameters of the frequency you want to measure on this screen. Then, you can see the difference between respectively the Channel Name, Video Frequency, Audio Frequency, Video Power, Audio Power, and Δ VIDEO/AUDIO in dB. You can visually speed up your measurement with signal strength bars changing according to the level in red for Video Frequency power and in green for audio frequency power on the right side of the screen. You can see if the Video Level Power bar and Audio Level Power bar are within the Max and Min values you select from the settings menu by looking at the green area. An ERROR warning will appear in case the signal values are insufficient, and a CONFIRMED sign will appear in case the signal values are appropriate in the box in the lower right corner.



You can see the Analogue TV channels after locking to the frequency by touching the SHOW CHANNEL box at the bottom right. While watching Analogue TV channels, no menu function works; you can only exit Analogue TV with the ESC button.



You can see the spectrum of a VHF terrestrial analogue cable TV channel on the screen above. You can access the Video-Audio-Colour spectrum detail of the channel you have measured by touching the Spectrum Box on the signal measurement screen.

System Signal Characteristics									
	Channel Space (MHz)	Video Mod. Type	Sound Mod. Type	Sideband Space (MHz)					
B (VHF)	7	AM	FM	0.75					
D	8	AM	FM	0.75					
G (UHF)	8	AM	FM	0.75					
н	8	AM	FM	1.25					
I	8	AM	FM	1.25					
К	8	AM	FM	0.75					
K1 (K')	8	AM	FM	1.25					
L	8	AM	AM	1.25					
М	6	AM	FM	0.75					
N	6	AM	FM	0.75					

Table About Analogue TV Systems:

Note: Blue-marked areas on the top of the spectrum screen show Analogue TV channel names and green-marked areas show DTV names.



CABLE TV SPECTRUM ANALYSIS:

The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when the DIGITAL SPECTRUM ANALYSIS measurement mode is switched. You can see the names of the channels in the green boxes at the top. You can see the Band Peak Power on the marker, and you can also see the instantaneous power of the marker line on the bottom left.



The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when performing ANALOGUE SPECTRUM ANALYSIS measurement. You can see the following information on the screen according to the frequency plan we have previously selected.

- 1. Channel Names: You can see the channel names inside the blue boxes, and these boxes are the bandwidth of that channel.
- 2. The marker on the video carrier of the channel you want to measure shows the RF level.
- 3. It is the video carrier within the band.
- 4. It is the sound carrier in the band.
- 5. You can change the frequency range (span) by placing two fingers on the red field.

FIT: You can fit the Min/Max levels of the signals on the screen by touching this box so you can easily see the lowest and highest signals in the whole spectrum.



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory and re-install them with the same settings.



SETTINGS: This menu allows you to change the Tp Frequency Plan shown with blue bars to OFF/DIGITAL/ANALOGUE/DIG+ANA. This allows you to restrict the transmitting system you want to appear on the screen. You can change the operating mode of the spectrum quickly and precisely.

You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.

DVB-C CONSTELLATION DIAGRAM:

DVB-C CONSTEI	LLATION		OFF	22	ĸ	•	:		03:00		93%
CHANNEL	CH-28 (DVB 530.00 MHz)										
FREQUENCY	530.00 MHz										
BANDWIDTH	8.0 MHz										
POWER	80.6 dBµV										
MER	20.0 dB									۰ ب	
bBER	<1.00E-7					64-0	QAM				
aBER	<1.00E-7		DVB-C			As CH1					
F1 SPECTRUM	F2 SIGNAL	^{F3} SC	AN C	HAN	INEL	S	s ^{esc} exit				

The constellation diagram shows in a graph the accuracy of the coordinates of the Digital I/Q symbols received at any given time. The colour scale, placed on the right side, provides a qualitative indication of the signal quality by grading the colours in proportion to the intensity of the dots concentrated in a particular area. The colour scale ranges from black (no symbol) to red (highest intensity).

A more extensive distribution of symbols indicates a higher noise level or worse signal quality. If there is a concentration of symbols relative to the full grid, the closer the collection of coordinate points is to each other and in a narrower area (see the advanced menu for grid types), this indicates a good signal-to-noise ratio or no problem.

These symbols are encoded with 64QAM, 128QAM and 256QAM modulation techniques as in the pictures determined according to the modulation types. You can see both constellation and other signal parameters and make fast and reliable measurements on this screen.

DVB-C CONSTEI	LATION	OFF 22K •	03:10 🔲 98%			
CHANNEL	S-20 (DVB 298.00 MHz)					
FREQUENCY	298.00 MHz					
BANDWIDTH	8.0 MHz					
POWER	57.8 dBµV					
MER	20.0 dB		1 1 4 4 9 4 1 4 4 2 4 6 1 4 4 1 5 4 4 4 5 7 5 6 4 1 4 7 1 7 7 5 4			
bBER	<1.00E-7	25	5-QAM			
aBER	<1.00E-7	DVB-C	HISTORY HD			
F1 SPECTRUM	F2 SIGNAL	F3 SCAN CHANNELS	^{ESC} EXIT			



DVB-C TILT-LIMIT MEASUREMENT:

Tilt/Limit list testing is an effective solution to check the regularity of the cable system and further attenuation of the wave at high frequencies. AS07STCA can get the levels of 12 channels and easily observe the measurement result and graph. You can select the first six frequency starts of the group and the last six frequencies from the end of the group. You can then check the slope of the group and arrange the amplifiers and elements in the cable line according to this slope.

DVB-C TABLE MEASUREMENT:



The AS07STC utilizes the channel scan function to quickly test the regularity and gain of the Cable TV system. You can select Analogue or Digital system selection, Step range and start and end frequencies, and you can scan signals in the whole band with one of the 6-7-8mhz bandwidths. You can check the signal values of all TPs using the TABLE MEASUREMENT menu when you have completed the system setup or when you go to service the subscriber.

DVB-0	TABLE SEA	RCH		OFF 22K		02:45 86%
#	FREQ.	SYSTEM	BW / AC	POWER	MER / APow	MOD / Δ
6	245.25 MHz	CATV-B	5.50 MHz	65.3 dBµV	53.1 dBµV	Δ: 12.1 dB
7	252.25 MHz	CATV-B	5.50 MHz	62.4 dBµV	52.5 dBµV	Δ: 10.0 dB
8	259.25 MHz	CATV-B	5.50 MHz	62.2 dBµV	47.8 dBµV	Δ: 14.4 dB
9	266.25 MHz	CATV-B	5.50 MHz	61.5 dBµV	48.8 dBµV	Δ: 12.7 dB
10	273.25 MHz	CATV-B	5.50 MHz	58.7 dBµV	48.6 dBµV	Δ: 10.1 dB
11	298.00 MHz	DVB-C	8.0 MHz	57.8 dBµV	20.0 dB	256-QAM
12	306.00 MHz	DVB-C	8.0 MHz	57.9 dBµV	20.0 dB	256-QAM
13	314.00 MHz	DVB-C	8.0 MHz	56.2 dBµV	20.0 dB	256-QAM
SCA	N COMPLETTED	F1 SAVE	E & EXIT	SAVE TO US	B ESC	EXIT

You can see which channel, analogue or digital, has the problem and compare the frequencies with each other. You will see the tables in the pictures after scanning all frequencies. You can save the entire table to USB with the "SAVE TO USB" button and save the measurement to the frequency plan used after all operations are finished.

DVB-C CHANNEL LIST:

DVB-C CHANNEL LIS	т		OF	F 22K 💿		02:40	84%
TV (19)		81	ci D		1	Kat	99
1 KABLO INFO HD				RK			
2 TV 4 HD	\$		F				
3 KRT TV HD	\$		L Y				
4 HISTORY HD	\$	E	530.00) MHz ()	D	VB-C	
5 BBC EARTH HD	\$	iet	PWR	62.3 dBµV	MER	35.2 dB	
6 BBC FIRST HD	\$	S	V.BR	3.3 Mbps	A.BR	184 Kbps	Q
7 S SPORT 2 HD	\$	LCN	SID 1102	VPID 6307	APID 6407	PCR 6307	PMT
8 NBA TV HD	\$	Video	H.264	Audio	MPEG2	HD - 1920	0x1080
F1 EDIT					ESC	EXIT	

You can bring it to the screen by touching the CHANNEL LIST from the DVB-C MENU. You can select, delete, and relocate individual TV and Radio channels in the Channel List menu. You can select channels from the left side. You can see the list of radio channels on the screen with the TV / RADIO button.

DVB-C CHANNEL LIST			OF	= 22K	• •	02:30 74%
TV (19)		Da Vin				KabloInfo
1 KABLO INFO HD	٣			KK		
2 TV 4 HD	\$					
3 KRT TV HD	\$		L Y			
4 HISTORY HD	\$	CE			A ALTER	and the second
5 BBC EARTH HD	\$	Keşfetn	neye Ne Dersin	? 14:30 'da	1	KabloTV
6 BBC FIRST HD	\$					
7 S SPORT 2 HD	\$		SID	VPID	APID	PCR PMT
8 NBA TV HD	\$	Video	H.264	Audio	MPEG2	HD - 1920x1080
^{F1} RENAME ^{F2}	DELET	E	F3 N	NOVE	ESC	CANCEL EDIT

You can touch on the EDIT box and then perform the CHANGE NAME / DELETE CHANNEL and MOVE CHANNEL process. You can enter the number of the new position to move the channels to when you touch on a Channel or touch all the channels you want to move in BULK and press the MOVE box. Single channel and batch channels will be transferred to the new position, respectively.



You can enlarge the image by touching it and pressing the LEVEL button to see both image and signal levels, AV bitrate rates and PID values on the same screen.

J.83B INSTRUCTION FOR USE ON MEASUREMENT:

Enter the J.83B (ANNEX.B) menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad.

STCA MAIN MENU		OFF 22K	E 🔲 00:00 🔲 3%
DV35/52 DVB-S/S2	DVB-C	DV31772 DVB-T/T2	SETTINGS
MOBILE	」 ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	ISDB-T	
AHD / TVI / CVI	HDMI IN	HDMI OUT	
STCA V1.527 22.08.2023			IP: 192.168.1.22

J.83B (ANNEX.B) SETTINGS:

J.83B SET	TINGS	OFF 22K •	CHG CHG
	Power Unit	dBµV	
	Power Calibration		0.0 dB
	Min RF Level	40	0.0 dBµV
	Max RF Level	80	0.0 dBµV
	Min MER		25.0 dB
	Max BER		1.XXE-1
	Channel Scan LCN		OFF
		ESC	EXIT

Power Unit: You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration</u>: The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, calibrate the levels closer to the correct level by changing this value to plus + or minus -.

<u>Min RF Level</u>: If this is less than the RF level value when measuring the signal, the correct installation is not confirmed.

<u>Max RF Level</u>: If the RF signal level you set is higher than this value, it may damage the system or prevent correct distribution.

<u>Min MER:</u> When the MER value drops below this level, the device will not confirm that the installation was done correctly.

J.83B SET	TINGS	OFF 22K 💽 🖪 🖵 CHG 🔲 CHG	
	Max RF Level	80.0 dBµV	
	Min MER	25.0 dB	
	Max BER	1.XXE-1	
	Channel Scan LCN	OFF	
	CHANNELS	1 DELETE ALL CHANNELS	
		Restore Factory Defaults	
		ESC EXIT	

Max BER: You can choose how much the Bit Error Rate data rate can be.

<u>LCN Scanning</u>: The device sorts the Channel assignment on the scanned platform frequencies according to the LCN (logic channel number) value.

DELETE ALL CHANNELS: It deletes all channels in the J.83B menu.

Factory Reset: It restores all database information in the J.83B menu to factory settings.

J.83B (ANNEX.B) FREQUENCY PLAN:

J.83B FRE	QUENCY PLAN		OFF 22K	•	🖳 СНС	CHG
	Active Plan	J.83B Generic				
		View / Edit Pl	an			
		Rename Pla	n			
		Reset Plan				
		Scan Channe	ls			
					E	KIT

Your device can store dozens of Frequency Plans for each system in its memory to be used in your own installations or operator deployments.

J.83	3B FF	REQUENCY	PLAN		0	FF 2	2K 💽	0	CHG CHG
			J.83B GENERIC			PO	SITION	1	
	1	S-02	J.83B	114.0	0 MHz	СН	ANNEL	S-02	
	2	S-03	J.83B	122.0	0 MHz				
	3	S-04	J.83B	130.0	0 MHz	DE	SCRIPTION	S-02	
	4	S-06	J.83B	138.0	0 MHz	FR	EQUENCY		114.00 MHz
	5	S-07	J.83B	146.0	0 MHz	ВА	NDWIDTH		5.06/5.36 MHz
	6	S-08	J.83B	154.0	0 MHz				
	7	S-09	J.83B	162.0	0 MHz				
	_	<u> </u>	1000	470.0	<u></u>				
F1	NE	W FREQ	F2 DELETE FF	REQ				ESC	ВАСК

You can manually change these frequency plans on the device or via a PC program. You can access all parameters such as Frequency, BW, and TV system for each frequency.

	Activ	PLAN N	IAME		iunicas Dian					
			Turkey Pl	an				ок		
				Re	name Plar					
			1			(٩
Q	W	E	R	T	Y 6	U	8	0	P	Ø
А	S	D	F	G	н	J	К	L		0
+	Ζ	х	С	V	В	Ν	М	ļ	?	<u>+</u>
?123	, I									٢

You can assign names and change parameters for your frequency plans. You can create your own plan.

J.83B SCAN CHA	NNELS	OFF 22K	В 💭 СНС 🚺 СНС
	SCAN METHOD	ALL PLAN SCAN	
	FREQUENCY		
	NETWORK	YES	
	CHANNELS	FREE + SCRAMBLED	
		START	
			ESC EXIT

You can then start the scan channel process by touching the START box. In the scan channel screen, you can see which frequencies you scan and the signal values. It will show the newly found channels in white colour on the screen.

J.83B SCA	N CHANNELS		OFF 22K		CHG CHG
	TV CHANNELS 1 (1 New)		RADIO	CHANNELS	0 (0 New)
No Name 25	6				
SIGNAL				88%	77.0 dBµV
QUALITY				99%	20.0 dB
PROGRESS	1/1 FREQ	S-23	(321.00 MHz)		J.83B
SCAN COMPL	ETTE			ESC	EXIT

<u>Scan Channels</u>: You can search for TV Channels suitable for your frequency plan in the J.83B band. You can then monitor and measure these channels.

SCAN MODE: You can scan in 2 modes as SINGLE FREQUENCY / ALL PLAN.

FREQUENCY: You can select which frequency to scan when scanning Single Frequency.

SCAN NETWORK: The NIT scan network for operators allows you to scan all frequencies.

CHANNELS: You can scan and memorize channels in 3 modes: UNENCODED / ENCRYPTED / ENCRYPTED + ENCRYPTED.

J.83B (ANNEX.B) SIGNAL MEASUREMENT:

Your AS07STCA-4K is capable of measuring J.83B (Annex B) signals. It can also show SD-HD-FHD-4K TV channels.

J.83B SIGNAL		OFF 22K 💿	E 📟 00:00 🔲 3%
CHANNEL	S-23 (321.00 MHz)		
FREQUENCY	321.00 MHz		45 40
BANDWIDTH	5.06/5.36 MHz		
MOD CODE	64-QAM		
bBER	<1.00E-7		
PER	<1.00E-7	10 RF 77.5 dBμV	5 MER 39.8 dB
LINK M.	20.0 dB	PASS	Scanning
F1 SPECTRUM	F2 CONSTELLATION	F3 SCAN CHANNELS	ESC EXIT

You can select the frequency at which you want to measure the J.83B (Annex B) signal or look at the signal levels and see the signal values on the screen. You can quickly switch to other measurement menus related to the frequency you have measured from the SPECTRUM, CONSTELLATION and CHANNEL SEARCH boxes at the bottom. Detailed information on Spectrum Analysis and Constellation properties will be given on the following pages.

<u>CHANNEL:</u> You can select the channel you want to measure in the frequency plan by touching the box.

<u>FREQUENCY</u>: You can see the frequency you measure. You can change it with the EDIT button.

BANDWIDTH: You can choose 5.06/5.36 or 5.60Mhz for J.83B.

MOD CODE: You can see in which mode the J.83B (Annex B) system is transmitting After the signal is locked.

<u>bBER / PER</u>: BER should be at the lowest level, which indicates the number of errors before or after correction.

<u>LINK Margin</u>: It can be used to know when the Total power of the frequency crosses the saturation threshold. A signal needs a safety margin that exceeds the threshold for good reception; the Link margin must be greater than zero (0).

RF: You can see the RF level with the red bar.

MER: You can see the MER rate with the green-coloured bar.

Enter the parameters of the frequency you want to measure; the coloured bold bars on the right side of the screen visually show the signal levels. Signal level values are indicated by numbers below the bars. You can see if the bars are within the Max and Min values you select from the settings menu by looking at the green area. You can also see the frequency parameters and signal values, such as MODULATION, BER, and MER, on the left side of the screen. A NOT LOCKED warning will appear in case the signal values are insufficient, and a LOCKED warning will appear in case the signal values are appropriate in the box in the lower right corner. If the signal levels are appropriate, the Channel names will appear in the LOWER LEFT bar. You can see the channel names at the frequency you have measured by touching this box.

<u>SEARCH CHANNEL and SAVE TO CHANNEL LIST</u>: Press the "SEARCH CHANNEL " box in the lower right section on a frequency where you are sure that the signal levels are suitable. You can browse using the UNENCRYPTED, ENCRYPTED or both options on the SEARCH CHANNEL screen. The channels you have scanned are found, then the information screen appears on the screen, and the channels are saved to the list. (You can access Radio channels by pressing TV/RADIO button).

J.83B (ANNEX.B) SPECTRUM ANALYSIS:



The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when the DIGITAL SPECTRUM ANALYSIS measurement mode is switched. You can see the names of the channels in the green boxes at the top. You can see the Band Peak Power on the marker, and you can also see the instantaneous power of the marker line on the bottom left.

Channel Names: You can see the channel names inside the blue boxes, and these boxes are the bandwidth of that channel. The marker on the video carrier of the channel you want to measure shows the RF level. You can change the frequency range (span) by placing two fingers on the red field.

FIT: You can fit the Min/Max levels of the signals on the screen by touching this box so you can easily see the lowest and highest signals in the whole spectrum.



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory and re-install them with the same settings.

J.83	BB SPECTRUM		OFF 22K	🗄 📟 СН	G CHG
dBµV		C1	C2	SET	TINGS
45		int	45.7 dBpv	PLAN	DIGITAL
40				MODE	FAST
35 30					
25					
20					
10				EXPO	ORT CSV
MHz	530	535 540	543.00 545	EXPO	RT IMAGE
F1	AUTO FIT	F2 REFERENCE	F3 SETTINGS	ESC	EXIT

SETTINGS: This menu allows you to change the Tp Frequency Plan, indicated by the blue bars, OFF/ON. This allows you to restrict the transmitting system you want to appear on the screen. You can change the operating mode of the spectrum quickly and precisely.

You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.

J.83B CONSTEL	OFF	22	K	•	E		CHG		CHG	
CHANNEL	S-23 (321.00 MHz)									
FREQUENCY	321.00 MHz									
BANDWIDTH	5.06/5.36 MHz									
POWER	76.6 dBμV									
MER	20.0 dB									
bBER	<1.00E-7				64-0	QAM				
aBER	<1.00E-7	J.83B			Scanning					
F1 SPECTRUM	F2 SIGNAL	F3 SCAN CHANNELS			ES	ESC EXIT				

J.83B (ANNEX.B) CONSTELLATION DIAGRAM:

The constellation diagram shows in a graph the accuracy of the coordinates of the Digital I/Q symbols received at any given time. The colour scale, placed on the right side, provides a qualitative indication of the signal quality by grading the colours in proportion to the intensity of the dots concentrated in a particular area. The colour scale ranges from black (no symbol) to red (highest intensity).

A more extensive distribution of symbols indicates a higher noise level or worse signal quality. If there is a concentration of symbols relative to the full grid, the closer the collection of coordinate points is to each other and in a narrower area (see the advanced menu for grid types), this indicates a good signal-to-noise ratio or no problem.

These symbols are encoded with 64QAM and 256QAM modulation techniques as in the images determined according to the modulation types. You can see both constellation and other signal parameters and make fast and reliable measurements on this screen.

J.83B CONSTEL	LATION	OFF 22K	CHG 🔲 CHG
CHANNEL	C2 (543.00 MHz)		
FREQUENCY	543.00 MHz		
BANDWIDTH	5.06/5.36 MHz		
POWER	60.9 dBµV		
MER	20.0 dB		
bBER	<1.00E-7	2	256-QAM
aBER	<1.00E-7	J.83B	Scanning
F1 SPECTRUM	F2 SIGNAL	F3 SCAN CHANNELS	ESC EXIT

J.83B (ANNEX.B) TILT-LIMIT MEASUREMENT:



Tilt/Limit list testing is an effective solution to check the regularity of the cable system and further attenuation of the wave at high frequencies. AS07STCA can get the levels of 12 channels and easily observe the measurement result and graph. You can select the first six frequency starts of the group and the last six frequencies from the end of the group. You can then check the slope of the group and arrange the amplifiers and elements in the cable line according to this slope.

J.83B (ANNEX.B) TABLE MEASUREMENT:

J.83B TAE	BLE SEARCH	OFF 22K 💽 🖪 🖵 CHG 🔲 CH	HG
	SEARCH MODE	DIGITAL	
	START FREQUENCY	530.00 MHz	
	STOP FREQUENCY	600.00 MHz	
	STEP	1.0 MHz	
	BANDWIDTH	5.06/5.36 MHz	
		START SEARCH	
		ESC EXIT	

The AS07STC utilizes the channel scan function to quickly test the regularity and gain of the Cable TV system. You can select the start and end frequencies with the step range, and you can scan signals in the whole band with one of the 5.06/5.36 or 5.60Mhz bandwidths. You can check the signal values of all TPs using the TABLE MEASUREMENT menu when you have completed the system setup or when you go to service the subscriber.

J.83B	TABLE SEAR	СН		OFF 22K		CHG CHG
#	FREQ.	SYSTEM	BW / AC	POWER	MER / APow	MOD / Δ
5	561.00 MHz	J.83B	5.06/5.36 MHz	60.1 dBµV	20.0 dB	256-QAM
6	567.00 MHz	J.83B	5.06/5.36 MHz	61.1 dBµV	20.0 dB	256-QAM
7	573.00 MHz	J.83B	5.06/5.36 MHz	58.9 dBµV	20.0 dB	256-QAM
8	579.00 MHz	J.83B	5.06/5.36 MHz	58.8 dBµV	20.0 dB	256-QAM
9	585.00 MHz	J.83B	5.06/5.36 MHz	57.9 dBµV	20.0 dB	256-QAM
10	591.00 MHz	J.83B	5.06/5.36 MHz	59.7 dBµV	20.0 dB	256-QAM
11	597.00 MHz	J.83B	5.06/5.36 MHz	59.2 dBµV	20.0 dB	256-QAM
12	600.00 MHz	J.83B	5.06/5.36 MHz			256-QAM
SCAI	N COMPLETTED	^{F1} SAVI	E & EXIT	² SAVE TO US	B	EXIT

You can see which channel in the entire plan has a problem and compare frequencies. You will see the tables in the pictures after scanning all frequencies. You can save the entire table to USB with the "SAVE TO USB" button and save the measurement to the frequency plan used after all operations are finished.

J.83B (ANNEX.B) CHANNEL LIST:

J.83B CHANNEL VIEW		O	FF 22K a		СНС 🔲	CHG
J.83B 321.00 MHz	88	SRB 0 9		e seal		T 99
No Name 256						
		Mer BigMer		Revise also	a BigMar BigMar I	Sig Mort Big
		321.00	MHz (S-23)		I.83B	
	a second	PWR	77.0 dBµV	MER	40.0 dB	
	S	V.BR	5.7 Mbps	A.BR	138 Kbps	Q
	LCN	SID	VPID	APID	PCR	PMT
	1	256	2001	2002	2000	129
	Video	H.264	Audio	MPEG2	HD - 192	0x1080
F1 FULL SCREEN F2 SAVE CHAN	INELS			ESC	EXIT	

You can bring it to the screen by touching the CHANNEL LIST from the J.83B MENU. You can select, delete, and relocate individual TV and Radio channels in the Channel List menu. You can select channels from the left side. You can see the list of radio channels on the screen with the TV / RADIO button.



You can touch on the EDIT box and then perform the CHANGE NAME / DELETE CHANNEL and MOVE CHANNEL process. You can enter the number of the new position to move the channels to when you touch on a Channel or touch all the channels you want to move in BULK and press the MOVE box. Single channel and batch channels will be transferred to the new position, respectively.



You can enlarge the image by touching it and pressing the LEVEL button to see both the image and the Signal levels, AV bitrate rates and PID values on the same screen.
ISDB-T SIGNAL MEASUREMENT AND INSTRUCTIONS FOR USE:

Enter the ISDB-T menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad.

STCA MAIN MENU		i Off 22K	B 🛡 02:55 🚺 92%
DVB-S/S2 DVB-S/S2	DVB-C	DVB-T/T2	SETTINGS
MOBILE	J.83B	ISDB-T	
AHD / TVI / CVI	HDMI IN	HDMI OUT	

ISDB-T SETTINGS:

ISDB-T SE	TTINGS	i) off 22K 💽 🖪 🛡 02	2:15 66%
	Power Unit	dBµV	
	Power Calibration	0.0 dB	
	Min RF Level	40.0 dBµV	
	Max RF Level	80.0 dBµV	
	Min MER	25.0 dB	
	Max BER	1.XXE-1	
	Channel Scan LCN	OFF	
		ESC	EXIT

Power Unit: You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration</u>: The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, calibrate the levels closer to the correct level by changing this value to plus + or minus -.

<u>Min RF Level</u>: If this is less than the RF level value when measuring the signal, the correct installation is not confirmed.

<u>Max RF Level</u>: If the RF signal level you set is higher than this value, it may damage the system or prevent correct distribution.

<u>Min MER:</u> When the MER value drops below this level, the device will not confirm that the installation was done correctly.

ISDB-T SE	TTINGS	ĺ	OFF 22K •		2:15 66%
					L 🔶
	Max RF Level		8	30.0 dBµV	
	Min MER			25.0 dB	
	Max BER			1.XXE-1	
	Channel Scan LCN			OFF	
	CHANNELS	1	DELETE ALL CHA	NNELS	
	R	estore Factory De	faults		
				ESC	EXIT

Max BER: You can choose how much the Bit Error Rate data rate can be.

<u>LCN Scanning</u>: The device sorts the Channel assignment on the scanned platform frequencies according to the LCN (logic channel number) value.

DELETE ALL CHANNELS: It deletes all channels in the ISDB-T menu.

Factory Reset: It restores all database information in the ISDB-T menu to factory settings.

ISDB-T FREQUENCY PLAN:

ISDB-T FR	EQUENCY PLAN	() OFF 22K	1 📼 02:20	67%
	<u></u>			
	Active Plan	ISDB-T Japan		
		View / Edit Plan		
		Donomo Dion		
		Reset Plan		
		Scan Channels		
			ESC EX	ίπ

Your device can store dozens of Frequency Plans for each system in its memory to be used in your own installations or operator deployments.

IS	SDB-T	FREQUENC	Y PLAN		1	FF 22K 💽	🗄 📟 02:15 💼 66%
			ISDB-T JAPAN			POSITION	1
	1	CH-13	ISDB-T	473.1	4 MHz	CHANNEL	CH-13
	2	CH-14	ISDB-T	479.1	4 MHz	DESCRIPTION	CH-13
	3	CH-15	ISDB-T	485.1	4 MHz		
	4	CH-16	ISDB-T	491.1	4 MHz	FREQUENCY	473.14 MHz
	5	CH-17	ISDB-T	497.1	4 MHz	BANDWIDTH	6.0 MHz
	6	CH-18	ISDB-T	503.1	4 MHz		
	7	CH-19	ISDB-T	509.1	4 MHz		
F1	NE	W FREQ	F2 DELETE FF	REQ			ESC BACK

You can manually change these frequency plans on the device or via a PC program. You can access all parameters such as Frequency, BW, and TV system for each frequency.

	Activ	PLAN	NAME		urleau Dian					
			Turkey Pla	an				ок		
				Rei	name Plan					
			1			l.				Ŷ
QV	V 2	E	R	T	Y 6	U	8	0	P	8
А	S	D	F	G	Н	J	К	L		0
<u>+</u>	Z	Х	С	V	В	Ν	Μ	ļ	?	<u>+</u>
?123	, 1									٢

You can assign names and change parameters for your frequency plans. You can create your own plan.

ISDB-T SCAN CH	ANNELS	İ OFF 22K 🖬 🖪	02:20 71%
	SCAN METHOD	ALL PLAN SCAN	
	FREQUENCY		
	NETWORK	YES	
	CHANNELS	FREE + SCRAMBLED	
		START	
		ES	° EXIT

You can then start the scan channel process by touching the START box. In the scan channel screen, you can see which frequencies you scan and the signal values. It will show the newly found channels in white colour on the screen.

ISDB-T SC	AN CHANNELS		Ì OFF 2	22K	8 🛡	02:30 72%
	TV CHANNELS 1 (1 N	lew)	R	ADIO CHAN	NELS 0	(0 New)
As CH1						
SIGNAL					88%	76.7 dBµV
QUALITY				······································	99%	20.0 dB
PROGRESS	1/1	FREQ	CH-14 (473.14 MH	z)		ISDB-T
SCAN COMPL	.ETTE				ESC	EXIT

<u>Scan Channels</u>: You can search for TV channels suitable for your frequency plan in the ISDB-T band. You can then monitor and measure these channels.

SCAN MODE: You can scan in 2 modes as SINGLE FREQUENCY / ALL PLAN.

FREQUENCY: You can select which frequency to scan when scanning Single Frequency.

SCAN NETWORK: The NIT scan network for operators allows you to scan all frequencies.

CHANNELS: You can scan and memorize channels in 3 modes: UNENCODED / ENCRYPTED / ENCRYPTED + ENCRYPTED.

ISDB-T SIGNAL MEASUREMENT:

Your AS07STCA-4K is capable of measuring ISDB-T signals. It can also show SD-HD-FHD-4K TV channels.

ISDB-T	SIGNAL			î C	DFF 22K	1 💭 02:55	90%
CHANN	EL	CH-14 (473.14 MHz)				
FREQUE	NCY		473.14 MHz				
BANDW	IDTH		6.0 MHz				
LINK M.			11.7 dB				
MOD	64-QAM 3/4	N/A					
bBER	<1.00E-7	<1.00E-7		·····10 ·····0	RF 69.2 dBµV	MER 29.1 dB	5 0
aBER	<1.00E-7	<1.00E-7		PASS		As CH1	
^{F1} S	PECTRUM	F2 CONST	ELLATION	^{F3} SCA	N CHANNELS	^{ESC} EXIT	

You can select the frequency at which you want to measure the ISDB-T signal or look at the signal levels and see the signal values on the screen. You can quickly switch to other measurement menus related to the frequency you have measured (473.143MHz frequency should be entered as 473.14MHz in the device) from the SPECTRUM,

CONSTELLATION and SEARCH CHANNEL boxes at the bottom. Detailed information on Spectrum Analysis and Constellation properties will be given on the following pages.

<u>CHANNEL</u>: You can select the channel you want to measure in the frequency plan by touching the box.

<u>FREQUENCY</u>: You can see the frequency you measure. You can change it with the EDIT button.

BANDWIDTH: You can select 6/7/8 Mhz for ISDB-T.

<u>MOD CODE</u>: You can see in which mode the ISDB-T system transmits after the signal is locked. The ISDB-T system can transmit in 3 different modes of constellation at the same time.

<u>bBER / aBER</u>: BER should be at the lowest level, which indicates the number of errors before or after correction. BER values are listed on the screen for three different modes.

<u>LINK Margin</u>: It can be used to know when the Total power of the frequency crosses the saturation threshold. A signal needs a safety margin that exceeds the threshold for good reception; the Link margin must be greater than zero (0).

<u>RF:</u> You can see the RF level with the red bar.

MER: You can see the MER rate with the green coloured bar.

Enter the parameters of the frequency you want to measure; the coloured bold bars on the right side of the screen visually show the signal levels. Signal level values are indicated by numbers below the bars. You can see if the bars are within the Max and Min values you select from the settings menu by looking at the green area. You can also see the frequency parameters and signal values, such as MODULATION, BER, and MER, on the left side of the screen. A NOT LOCKED warning will appear in case the signal values are insufficient, and a LOCKED warning will appear in case the signal values are appropriate in the box in the lower right corner. If the signal levels are appropriate, the Channel names will appear in the LOWER LEFT bar. You can see the channel names at the frequency you have measured by touching this box.

<u>SEARCH CHANNEL and SAVE TO CHANNEL LIST:</u> Press the "SEARCH CHANNEL " box in the lower right section on a frequency where you are sure that the signal levels are suitable. You can browse using the UNENCRYPTED, ENCRYPTED or both options on the SEARCH CHANNEL screen. The channels you have scanned are found, and then the information screen appears on the screen, and the channels are saved to the list. (You can access Radio channels by pressing TV/RADIO button).

ISDB-T SPECTRUM ANALYSIS:



The device displays all ANALOGUE and DIGITAL carrier signals determined to be within the selected spectrum (frequency domain) when the DIGITAL SPECTRUM ANALYSIS measurement mode is switched. You can see the names of the channels in the green boxes at the top. You can see the Band Peak Power on the marker, and you can also see the instantaneous power of the marker line on the bottom left.

Channel Names: You can see the channel names inside the blue boxes, and these boxes are the bandwidth of that channel. The marker on the video carrier of the channel you want to measure shows the RF level. You can change the frequency range (span) by placing two fingers on the red field.

FIT: You can fit the Min/Max levels of the signals on the screen by touching this box so you can easily see the lowest and highest signals in the whole spectrum.



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory and re-install them with the same settings.



SETTINGS: This menu allows you to change the Tp Frequency Plan, indicated by the blue bars, OFF/ON. This allows you to restrict the transmitting system you want to appear on the screen. You can change the operating mode of the spectrum quickly and precisely.

You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.

ISDB-T CONSTELLATION DIAGRAM:

ISDB-T	CONSTELLA	ΓΙΟΝ		İ OFF 22K		🖪 📟 02:25 🔜 70 %
CHANN	EL	CH-14 (4	73.14 MHz)			
FREQUE	FREQUENCY 473.14 MHz					
BANDW	VIDTH		6.0 MHz	and the second sec		an an an an an an an an an an an an an a
PWR	76.3 dBµV	MER	20.0 dB			aline de la Co No en constantes
MOD	64-QAM 3/4	N/A				
bBER	<1.00E-7	<1.00E-7		64-	QAM 3/4	N/A N/A
aBER	<1.00E-7	<1.00E-7		PASS		As CH1
^{F1} S	PECTRUM	^{F2} SIG	NAL	F3 SCAN CHAN	NELS	ESC EXIT

The constellation diagram shows in a graph the accuracy of the coordinates of the Digital I/Q symbols received at any given time. The colour scale, placed on the right side, provides a qualitative indication of the signal quality by grading the colours in proportion to the intensity of the dots concentrated in a particular area. The colour scale ranges from black (no symbol) to red (highest intensity). It shows three different modes at the same time.

A more extensive distribution of symbols indicates a higher noise level or worse signal quality. If there is a concentration of symbols relative to the full grid, the closer the collection of coordinate points is to each other and in a narrower area (see the advanced menu for grid types), this indicates a good signal-to-noise ratio or no problem.

These symbols are encoded with 64QAM-OFDM, 16QAM-OFDM, QPSK-OFDM, and DQPSK-OFDM modulation techniques, as shown in the pictures determined according to modulation types. You can see both constellation and other signal parameters and make fast and reliable measurements on this screen.

ISDB-T	CONSTELLA	TION		I OFF 22K		8 📟 02:25	70%
CHANN	EL	CH-14 (4	73.14 MHz)				
FREQU	ENCY		473.14 MHz				
BANDW	IDTH		6.0 MHz				
PWR	76.3 dBµV	MER	20.0 dB				
MOD	64-QAM 3/4	N/A					
bBER	<1.00E-7	<1.00E-7		64-0	QAM 3/4	N/A N/A	
aBER	<1.00E-7	<1.00E-7		PASS		As CH1	
^{F1} S	PECTRUM	^{F2} SIG	NAL	F3 SCAN CHANN	NELS	ESC EXIT	

ISDB-T TILT-LIMIT MEASUREMENT:



Tilt/Limit list testing is an effective solution to check the regularity of the cable system and further attenuation of the wave at high frequencies. AS07STCA can get the levels of 12 channels and easily observe the measurement result and graph. You can select the first six frequency starts of the group and the last six frequencies from the end of the group. You can then check the slope of the group and arrange the amplifiers and elements in the cable line according to this slope.

ISDB-T TABLE MEASUREMENT:

ISDB-T TA	BLE SEARCH	i OFF 22K	8 🛡 02:20 🚺 67%
	SEARCH MODE		
	START FREQUENCY		470.14 MHz
	STOP FREQUENCY		180.00 MHz
	STEP		0.5 MHz
	BANDWIDTH		6.0 MHz
		START SEARCH	
			EXIT

The AS07STC utilizes the channel scan function to quickly test the regularity and gain of the Cable TV system. You can select the start and end frequencies with the step range, and you can scan signals in the whole band with one of the 6/7/8Mhz bandwidths. You can check the signal values of all TPs using the TABLE MEASUREMENT menu when you have completed the system setup or when you go to service the subscriber.

ISDB-T TABLE SEARCH				Ì OFF 22K		02:20 67%
#	FREQ.	SYSTEM	BW / AC	POWER	MER / APow	MOD / Δ
1	473.14 MHz	ISDB-T	6.0 MHz	76.7 dBµV	20.0 dB	64-QAM 3/4
SCA	N COMPLETTED	F1 SAVE	E & EXIT	F2 SAVE TO US	B	EXIT

You can see which channel in the entire plan has a problem and compare frequencies. You will see the tables in the pictures after scanning all frequencies. You can save the entire table to USB with the "SAVE TO USB" button and save the measurement to the frequency plan used after all operations are finished.

ISDB-T CHANNEL LIST:



You can bring it to the screen by touching the CHANNEL LIST from the ISDB-T MENU. You can select, delete, and relocate individual TV and Radio channels in the Channel List menu. You can select channels from the left side. You can see the list of radio channels on the screen with the TV / RADIO button.



You can touch on the EDIT box and then perform the CHANGE NAME / DELETE CHANNEL and MOVE CHANNEL process. You can enter the number of the new position to move the channels to when you touch on a Channel or touch all the channels you want to move in BULK and press the MOVE box. Single channel and batch channels will be transferred to the new position, respectively.



You can enlarge the image by touching it and pressing the LEVEL button to see both the image and the Signal levels, AV bitrate rates and PID values on the same screen.

ISDB-T CHANNEL VIEW			FF 22K 💿		02:40	80%
ISDB-T 473.14 MHz	88	SRB 0 9 TUR 0 8		हर्च करते। सन्दर्भ		T 99
As CH1						
			1. 2.			
					Real Roller	
		473.14 N	1Hz (CH-14)		SDB-T	
	and the second se	PWR	76.3 dBµV	MER	29.9 dB	
	s	V.BR	5.5 Mbps	A.BR	138 Kbps	ير ٩ م
	LCN	SID	VPID	APID	PCR	PMT
	1	256	2001	2002	2000	129
	Video	H.264	Audio	MPEG2	HD - 192	0x1080
F1 FULL SCREEN F2 SAVE CHAN	INELS			ESC	EXIT	

INSTRUCTIONS FOR USE ON MOBILE GSM SIGNAL MEASUREMENT:

Enter the MOBILE (GSM) ANALYZER menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad. You can see the power and spectrum of the uplink frequencies of Gas Stations from the Mobile GSM Analyzer menu.

STCA MAIN MENU		OFF 22K	🗄 📟 CHG 🔜 CHG			
DV35/52 DVB-S/S2	DVB-C	DV3T/T2 DVB-T/T2	SETTINGS			
	J.83B	ISDB-T				
AHD / TVI / CVI	HDMI IN	HDMI OUT				
STCA V1.627 22.08.2023 IP: 192.168.1.22						

MOBILE GSM SETTINGS:

MOBILE S	ETTINGS	OFF 22K	🖪 📟 Chg	CHG
	()	
	Power Unit	dBμV		
	Power Calibration		0.0 dB	
		Restore Factory Defaults		
			ESC	_
			EX	

Power Unit: You can see the signal levels on the display in dBuV/dBm/dBmV units.

<u>Power Calibration</u>: The margin of error of the measurement levels may increase depending on ambient temperatures and time of use. You can, therefore, calibrate the levels closer to the correct level by changing this value to plus + or minus -.

<u>Factory Reset:</u> It restores all database information in the Mobile GSM Analyzer menu to factory settings.

MOBILE (GSM) FREQUENCY PLAN:

MOE	BILE FREQUENC	Y PLAN OFF 22	С 📧 🔳 🖳 СНС 🔜 СНС
	BAND	BAND	
	1 Test	1 5G - 700 MHz	
	T TURK	2 4G - 800 MHz	
	2 Turk	3 GSM - 900 MHz	8.000 MHz
	3 Voda	4 DCS - 1800 MHz	3.000 MHz
		5 UMTS - 2100 MHz).000 MHz
F1	NEW CHANNEL	F2 DELETE CHANNEL	ESC BACK

Your device keeps a Frequency Plan for each GSM system in its memory to be used in repeater installations. You can assign Names for your frequency plans.

MOBILE F	REQUE	NCY PL	AN			OFF 22			CHG	CHG
	BAND	NEW C	5G - 700	MHz						
			nannel om (700		, 	BEGIN		ОК 758,000 м		
	3 V	odafone	(778-788	MHz)		PHD		760.000 14		L
Q	W	E	R	T	Υ 6	U	8	0 °	P	Ø
A	S	D	F	G	Н	J	К	L		0
+	Z	Х	С	V	В	N	М	1	?	+
?123	, I									٢

You can manually change the 5G-4G-3G-GSM1800-GSM900 frequency plans on the device or via a PC program. Frequency range and bandwidth must be entered for each operator band.

MOBILE F	CHG CHG			
	BAND	5C - 700 MHz		
	BAND	56 - 700 Wil 12	_	
	1 Turkcell (7	758-768 MHz)	CHANNEL	Turkcell
	2 Turk Telel	com (768-778 MHz)	BEGIN	758.000 MHz
	3 Vodafone	(778-788 MHz)	END	768.000 MHz
			BW	10.000 MHz
F1 NEW CHANNEL F2 DELETE CHANNEL				ESC BACK

MOBILE GSM MEASUREMENT SCREENS:

You can see the spectrum measurements of GSM operators in the 5G 700MHz band.



You can see the spectrum measurements of GSM operators in the 4G 800MHz band.





You can see the spectrum measurements of GSM operators in the 3G UMTS 2100MHz band.

You can see spectrum measurements of GSM operators in the GSM 1800MHz band.





You can see spectrum measurements of GSM operators in the GSM 900MHz band.

REFERENCE and SETTINGS:



REFERENCE: You can SAVE the top points of the spectrum as a white line, and then you can RECALL them from memory in your subsequent measurements and re-install them with the same settings.

SETTINGS: This menu allows you to change the Operator names shown with blue bars to OFF/OFF. This way, you can restrict the system you want to appear on the screen. You can change the operating mode of the spectrum quickly and precisely.

You can export the spectrum display as a *.CSV file and as an IMAGE file to USB.

CCTV - A/V - HDMI INPUT TEST AND INSTRUCTIONS FOR USE:

Enter the MOBILE (GSM) ANALYZER menu on your AS07STCA-4K using the touchscreen or the direction and OK buttons on the silicone keypad. You can set the focus and direction installation of AHD / TVI / CVI / PAL cameras, perform cable and TV tests with HDMI OUT, test any HDMI source up to 1080p with HDMI INPUT, and perform output pal through AV output from the CCTV - A/V - HDMI IN / OUT menus.



The device will count for 3 seconds and switch to CCTV mode when you select AHD/TVI/CVI. You can see the supported resolutions below.

ANALOGUE	: PAL - NTSC AV Input
AHD	: 1MP, 2MP, 3MP, 4MP, 5MP, 8MP
TVI	: 1MP, 2MP, 3MP, 4MP, 5MP, 8MP
CVI	: 1MP, 2MP, 4MP, 8MP



You can test any HDMI source up to 1080p when you select HDMI IN.

HDMI IN : SD - HD - FHD



The device will count for 3 seconds, and you can test cables and TVs up to 4K resolution when you select HDMI OUT. Press AV/AHD/IN/OUT to exit from this mode to the MAIN MENU.

HDMI OUT : SD - HD - FHD - 4K



The device will count for 3 seconds, and you can perform output pal and tests when you select AV IN / OUT. Press AV/AHD/IN/OUT to exit from this mode to the MAIN MENU.

AV Input : PAL - NTSC AV Input