



M ■ T ■ K HD





#### M E T E K HD

## DEVELOPED BY AND FOR PROFESSIONALS

Ekselans by ITS introduces METEK HD, its first professional field meter. Designed and developed completely by our R&D team, METEK HD is presented to the market as a complete, intuitive field meter that completely covers the current and future needs of telecommunication installers.

METEK HD: access a professional field meter, with an unbeatable quality-price ratio and with the support and guarantee of EK.

- √ DVB-S/S2, DVB-T/T2, DVB-C Demodulation and analysis
- √ High-resolution 7-inch TFT-LCD screen
- $\sqrt{\phantom{0}}$  High quality DSP Spectrum from 50-2200MHz with 50dB of onscreen dynamic range
- √ Supports HEVC (H.265), MPEG4 (H.264) and MPEG2 decoding, SD & HD
- $\sqrt{}$  Single F Male connector input featuring a fully automatic attenuator with channel power of up to 120dBµV in 5dB steps
- $\sqrt{\phantom{a}}$  Measures Channel power, Noise margin, MER, CBER, VBER, TS Errors and Constellation
- $\sqrt{\phantom{0}}$  RF power supply from 5 to 24V, in 1V steps
- √ Supports Diseqc 2.0, SATCR and DCSS
- $\sqrt{}$  Special spectrum modes (Max Hold, Spectrogram) for interference detection and LTE Measuring
- √ Efficient and user friendly user interface
- √ Full TS recording to external USB drive
- √ Standard 6h battery life per charge
- √ Supports automatic adjustment of screen brightness
- $\sqrt{\phantom{a}}$  Supports measurement + TV decoding, measurement + spectrum and measurement + constellation
- √ Standby mode for instant power on
- √ Multi-function wheel navigation
- √ Screen capture to external USB drive with a dedicated button
- √ SAT support, transponder update separately via USB or FTP (WiFi)
- √ Firmware updates through USB or FTP (WiFi)

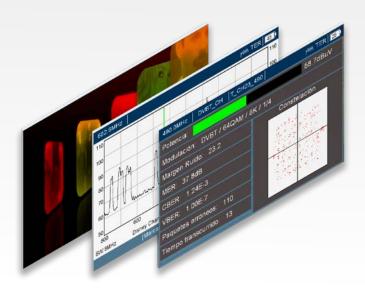


### 1 TRIPLE BAND

Specific button for fast switching between the different DVB-T / T2, S / S2, C bands. Possibility to hide the cable band (DVB-C).



## **02** TRIPLE SCREEN



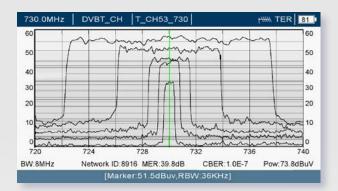
Fast switching between spectrum, measurements and image. By pressing the button of the desired mode, each functionality is quickly accessed. The dynamic navigation mode allows access to each channel as programmed.

## MEASURES ON A SINGLE SCREEN

Quick access to all necessary measures with 7 "high-quality backlit TFT screen. Automatic adjustment of the intensity according to the ambient light.







# O 5 POWER MEASUREMENT LTE AND LTE2

MAX Hold function to capture interfering signals from 4G and 5G mobile telephony. This function is present throughout the band to measure interference at any frequency.

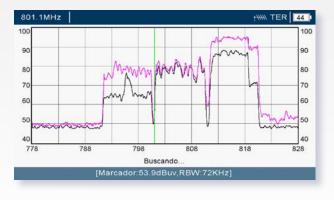
## 04

#### FAST AND PRECISE SPECTRUM

Self-adjusting resolution filters according to SPAN for a perfect balance between precision and measurement time. Spectrum of high resolution 1024 FFT.









## <u>06</u>

## HIGH PRECISION INPUT ATTENUATOR

Single RF input for all bands. High precision attenuator that can be ajusted manually or automatically up to 45dB.

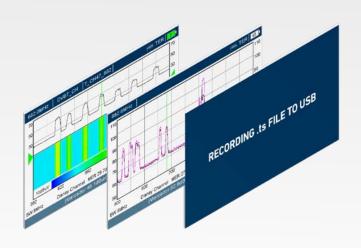




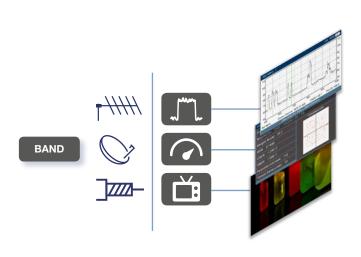
### 7 HD VIDEO CODECS

H.264 MPEG4 HEVC Metek HD allows decoding of H.264 (MPEG4) and H.265 (HEVC) video. Audio MPEG-2 (L1 & L2), MPEG4 (AAC) codecs are also included.

# O 8 ADDITIONAL PROFESSIONAL FUNCTIONS



Spectrogram, MAX hold, Satellite identification, WiFi, SatCR, DCSS, erroneous packets, Lte1 and Lte2 measurement, supplied voltage and current consumption measurement, screenshot, .ts recording, ...



## **9** QUICK NAVIGATION

Quick access to the functions of the meter and predefined groups in each band, for greater ease and speed of navigation. Exportable and editable groups. Creation of terrestrial, satellite or cable bands mixed groups.



## AUTONOMY AND ENERGY SAVING

Lithium battery of high duration ( $\sim$  6h). Stand-by mode for faster starting speed and battery saving. Light intensity photodetector for automatic adjustment of the screen illumination.





## ERGONOMICS AND PROTECTION

Lateral rubber cover for protection against impacts. Ergonomic function and belt support.

## 12 WIFI NETWORK



It allows to detect and connect to WiFi 2.4GHz networks, see the power of each network and make tests of the link to the network (PING).



- 1. POWER ADAPTER 15V 2,5A
- 2. CABLE CHARGER FOR CAR
- 3. ADAPTER F FEMALE IEC FEMALE
- 4. ADAPTER F FEMALE F FEMALE
- 5. TRANSPORTATION BAG



Monitor Display         7-inch TFT           Dots Pixels         1024'600           The Utility battery         2.4 Y 7800 mAh 57.7 Wh           RE Input         F Male connector.75 0           Video/Audio output         HDMI Output           External Units Power supply         Statellite band           22XHZ singal         Selectable in Satellite Band           Diseage generator         Diseage 1.0/1.1/2.0           Terrestrial Band         0.7.5 - 24 V (Steps) V)           Battery Operation Time         A hours           Power off current         4.2 mA           VEDIO DECODING         MPEG. PMEG. 2 Mp@ML, H.264, VCI., DV, MPEG4, H.265 (1080p@60fps)           AUDIO DECODING         MPEG. 2 layer 1 and II (Musiccam), MPEG. 4 AAC           OUTPUT MODE         Mono. Dual Channel, Stereo. Joint Stereo           METER NAVIGATION MODE           Satellite           Frequency Range         950-2150 MHz           Support Measurement parameter         Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation           Symbol rate         1 - 55 MS/s           Power Accuracy         1.8 dB           MER range         >25 dB           Power range         51 - 1000 MHz           Power ran	TECHINCAL INFORMATION				
The Lithium battery	Monitor Display	7-inch TFT			
RF Input         F Male connector,75 Ω           Video/Audio output         HDMI Output           External Units Power supply           Satellite band         0 V.5 − 24 V (Steps1 V)           22KHZ singal         Selectable in Satellite Band           Diseac generator         Diseact 1.0/1.1/2.0           Terrestrial Band         0 V.5 − 24 V (Steps1 V)           Baltery Operation Time         6 hours           Power off current         <2 mA           VEDIO DECODING         MPEG-1. MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)           AUDIO DECODING         MPEG-2 layer I and II (Musiccam), MPEG4 AAC           OUTPUT MODE           MATER NAVIGATION MODE           Satellite           Frequency Range         950−2150 MHz           Support Measurement parameter         Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation           Symbol rate         1 − 55 MS/s         Power range           Symbol rate         1 − 55 MS/s         Power Accuracy         1.8 dB           MER range         225 dB         Power range         20-120 dBjuV           Demodulation         DVB-5/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM         Terrestrial           Frequency Range         51 − 100	Dots Pixels	1024*600			
Video/Audio output         HDMI Output           External Units Power supply           Satellite band         0 V. 5 - 24 V (Stepst V)           22KHZ singal         Selectable in Satellite Band           Diseac generator         Diseact 1.0/1.1/2.0           Terrestrial Band         0 V. 5 - 24 V (Stepst V)           Battery Operation Time         6 hours           Power off current         -2 mA           VEDIO DECODING         MPEG-1 MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)           MUION DECODING           MPEG-2 Mayer I and II (Musiccam), MPEG4 AAC           OUTPUT MODE           METER NAVIGATION MODE           Satellite           Frequency Range         950-2150 MHz           Support Measurement parameter         250-2150 MHz           Support Measurement parameter         1 - 55 MS/s           Power resolution         0.1 dB           Power resolution         0.1 dB           Power range         20 - 120 dBjW           Demodulation         DVB-S/S2 QPSK, BPSK, 16APSK, 32APSK, ACM / VCM           Terrequency Range         51 - 1000 MHz           Support Measurement parameter         Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constella	The lithium battery	7.4 V 7800 mAh 57.7 Wh			
External Units Power supply  Satellite band  0 V, 5 - 24 V (Steps1 V)  22KHZ singal  Selectable in Satellite Band  Diseqc generator  Diseqc 1.071.172.0  Terrestrial Band  0 V, 5 - 24 V (Steps1 V)  Battery Operation Time  4 hours  Power off current  2 mA  VEDIO DECODING  MPEG1, MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING  MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE  Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range  950-2150 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Power rasolution  0.1 dB  Power Accuracy  1.8 dB  MER range  25 dB  Power range  20-120 dBµV  Demodulation  Demodulation  Demodulation  Demodulation  Terrestrial  Frequency Range  51 - 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Demodulation  Demodulation  Demodulation  Demodulation  Demodulation  Demodulation  Demodulation  Demodulation  Dissipping MER, CBER, VBER, TS Errors, Constellation  Prequency Range  51 - 1000 MHz  Support Measurement Parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Power resolution  0.1dB  Power range  30-120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	RF Input	F Male connector,75 Ω			
Satellite band 0 V. 5 - 24 V (Steps1 V)  22KHZ singal Selectable in Satellite Band  Diseqc generator Diseqc 1.0/1.1/2.0  Terrestrial Band 0 V. 5 - 24 V (Steps1 V)  Battery Operation Time 6 hours  Power off current < 2 mA  VEDIO DECODING MPEG-1 MPEG-2 MP@ML. H.264, VC1, DV. MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING MPEG-2 layer I and If (Musiccam), MPEG4 AAC  OUTPUT MODE Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 1 - 55 Ms/s  MER range 25 dB  Power Accuracy 31.8 dB  MER range 20-120 dBµV  Demodulation DVB-5/52 OPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 - 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  DVB-5/52 OPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 - 1000 MHz  Support Measurement Parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  DVB-5/52 OPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 - 1000 MHz  Support Measurement Parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Power Accuracy 41.8 dB  MER range 35 dB  Power range 30-120 dBpV  demodulation DVB-7/T2 COFDM  Cable	Video/Audio output	HDMI Output			
Selectable in Satellite Band	External Units Power supply				
Diseqc 1.0/1.1/2.0  Terrestrial Band 0 V. 5 - 24 V (Steps1 V)  Battery Operation Time 6 hours  Power off current < 2 mA  VEDIO DECODING MPEG-1. MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 1.8 dB  MER range 25 dB  Power raccuracy ±1.8 dB  MER range 20-120 dB;W  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 – 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 20-120 dB;W  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 – 1000 MHz  Support Measurement Parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter Symbol rate 6 MHz, 7 MHz, 8 MHz  Power raccuracy 1.8 dB  MER range 35 dB  Power range 30-120 dB;W  demodulation DVB-T/TZ COFDM  Cable	Satellite band	0 V, 5 ~ 24 V (Steps1 V)			
Terrestrial Band 0 V, 5 ~ 24 V (Steps1 V)  Battery Operation Time 6 hours  Power off current < 2 mA  VEDIO DECODING MPEG1, MPEG2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 1 ~ 55 MS/s  Power Accuracy 1 1.8 dB  MER range 25 dB  Power range 20-120 dBµV  Demodulation DVB-5/52 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 51 ~ 1000 MHz  Support Measurement parameter 20-120 dBµV  Demodulation DVB-5/52 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy 1.8 dB  MER range 35 dB  Power range 30-120 dBµV  demodulation DVB-17T2 COFDM  Cable	22KHZ singal	Selectable in Satellite Band			
Battery Operation Time	Diseqc generator	Diseqc 1.0/1.1/2.0			
Power off current  VEDIO DECODING  MPEG1, MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING  MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE  Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range  950-2150 MHz  Support Measurement parameter  Symbol rate  1 - 55 MS/s  Power resolution  0.1 dB  Power Accuracy  \$1.8 dB  MER range  >25 dB  Power range  20-120 dBµV  Demodulation  DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  \$1 - 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  \$1 - 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1 dB  Power Accuracy  \$1.8 dB  MER range  >35 dB  Power Accuracy  \$1.8 dB  MER range  >35 dB  Power Accuracy  \$1.8 dB  MER range  >35 dB  Power ange  30-120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	Terrestrial Band	0 V, 5 ~ 24 V (Steps1 V)			
AUDIO DECODING  MPEG1, MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)  AUDIO DECODING  MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE  Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range  950-2150 MHz  Support Measurement parameter  Symbol rate  1 ~ 55 Ms/s  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  20-120 dBµV  Demodulation  DyB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  51 ~ 1000 MHz  Support Measurement parameter  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  53 dB  Power Accuracy  ±1.8 dB  MER range  30-120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	Battery Operation Time	6 hours			
AUDIO DECODING  MPEG-2 layer I and II (Musiccam), MPEG4 AAC  OUTPUT MODE  Mono, Dual Channel, Stereo, Joint Stereo  METER NAVIGATION MODE  Satellite  Frequency Range  950-2150 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  1 - 55 MS/s  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  25 dB  Power range  20-120 dBµV  Demodulation  DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  3-35 dB  Power range  30-120 dBµV  demodulation  DVB-T/TZ COFDM  Cable	Power off current	<2 mA			
METER NAVIGATION MODE  Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter 1. ~ 55 MS/s  Power resolution 0.1 dB  Power Accuracy ±1.8 dB  MER range 20-120 dBpV  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 - 1000 MHz  Support Measurement parameter 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 4. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Support Measurement 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 2. Support Measurement 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation 2. Support Measurement 3.	VEDIO DECODING	MPEG1, MPEG-2 MP@ML, H.264, VC1, DV, MPEG-4, H.265 (1080p@60fps)			
METER NAVIGATION MODE  Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter 1. ~ 55 MS/s  Power resolution 0.1 dB  Power Accuracy ±1.8 dB  MER range 20-120 dBpV  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 - 1000 MHz  Support Measurement parameter 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 4. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 3. Support Measurement 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation parameter 2. Support Measurement 2. Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation 2. Support Measurement 3.	AUDIO DECODING	MPEG-2 layer I and II (Musiccam), MPEG4 AAC			
Satellite  Frequency Range 950-2150 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation 2.55 MS/s  Power resolution 0.1 dB  Power Accuracy 1.8 dB  MER range >25 dB  Power range 20-120 dBµV  Demodulation DVB-S/S2 OPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power Accuracy 1.8 dB  MER range >35 dB  Power range 30-120 dBµV  demodulation DVB-T/T2 COFDM  Cable	OUTPUT MODE				
Support Measurement parameter  Symbol rate  1 ~ 55 MS/s  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  20~120 dBµV  Demodulation  DVB-S/52 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  DVB-S/52 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1dB  Power Accuracy  ±1.8 dB  MER range  >35 dB  Power range  30~120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	METER NAVIGATION MODE				
Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  1 ~ 55 MS/s  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  >25 dB  Power range  20~120 dBµV  Demodulation  DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power Accuracy  ±1.8 dB  MER range  >35 dB  Power range  30~120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	Satellite				
Parameter  Channel power, Noise margin, MER, CBER, VBER, 15 Errors, Constellation  9 ymbol rate  1 ~ 55 MS/s  Power resolution  0.1 dB  Power Accuracy  ±1.8 dB  MER range  >25 dB  Power range  20-120 dBµV  Demodulation  DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range  51 ~ 1000 MHz  Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1dB  Power Accuracy  ±1.8 dB  MER range  >35 dB  Power range  30-120 dBµV  demodulation  DVB-T/T2 COFDM  Cable	Frequency Range	950~2150 MHz			
Power resolution       0.1 dB         Power Accuracy       ±1.8 dB         MER range       >25 dB         Power range       20~120 dBμV         Demodulation       DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM         Terrestrial         Frequency Range       51 ~ 1000 MHz         Support Measurement parameter       Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation         Symbol rate       6 MHz, 7 MHz, 8 MHz         Power resolution       0.1dB         Power Accuracy       ±1.8 dB         MER range       >35 dB         Power range       30~120 dBμV         demodulation       DVB-T/T2 COFDM         Cable		Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation			
Power Accuracy ±1.8 dB  MER range >25 dB  Power range 20~120 dBµV  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	Symbol rate	1 ~ 55 MS/s			
MER range >25 dB  Power range 20~120 dBµV  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	Power resolution	0.1 dB			
Power range 20~120 dBµV  Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	Power Accuracy				
Demodulation DVB-S/S2 QPSK, 8PSK, 16APSK, 32APSK, ACM / VCM  Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable					
Terrestrial  Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable					
Frequency Range 51 ~ 1000 MHz  Support Measurement parameter Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable					
Support Measurement parameter  Channel power, Noise margin, MER, CBER, VBER, TS Errors, Constellation  Symbol rate  6 MHz, 7 MHz, 8 MHz  Power resolution  0.1dB  Power Accuracy  ±1.8 dB  MER range  >35 dB  Power range  30~120 dBµV  demodulation  DVB-T/T2 COFDM  Cable		T4 4000 NIII			
Symbol rate 6 MHz, 7 MHz, 8 MHz  Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	Support Measurement				
Power resolution 0.1dB  Power Accuracy ±1.8 dB  MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	·	6 MHz, 7 MHz, 8 MHz			
MER range >35 dB  Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	-				
Power range 30~120 dBµV  demodulation DVB-T/T2 COFDM  Cable	Power Accuracy				
Power range 30~120 dBµV demodulation DVB-T/T2 COFDM Cable	•				
Cable	·	30~120 dBμV			
	demodulation	DVB-T/T2 COFDM			
Frequency Range 51 MHz ~ 1000 MHz	Cable				
	Frequency Range	51 MHz ~ 1000 MHz			



Support Measurement parameter	Power, CBER, VBER, MER, Const	Power, CBER, VBER, MER, Constellation		
Symbol rate	6 MS/s	6 MS/s		
Power resolution	0.1 dB	0.1 dB		
Power Accuracy	±1.8 dB	±1.8 dB		
MER range	>35 dB			
Power range	30~120 dBμV	30~120 dBμV		
Demodulation	DVB-C QAM,J83 Annex C QAM	DVB-C QAM,J83 Annex C QAM		
SPECTRUM NAVIGATION MODE (DSP)				
Frequency Range	Terrestrial&Cable: 50 ~ 1000 MHz			
	Satellite: 900 ~ 2200 MHz	Satellite: 900 ~ 2200 MHz		
Reference Level	Terrestrial&Cable: 60 ~ 110 dBμV in 5 dB steps			
	Satellite: 60 ~ 110 dBµV in 5dB steps			
Accuracy	±1.8 dB	±1.8 dB		
Span	Terrestrial&Cable: 10, 20, 50, 100, 200, 500, 950 MHz			
	Satellite: 10, 20, 50, 100, 200, 500, 1200 MHz			
	Terrestrial&Cable: 36, 72, 145, 291, 583, 1166 KHz			
RBW	Satellite: 100 KHz, 200 KHz, 500 KHz, 1 MHz, 2 MHz, 5 MHz			
FFT/Sample Size	1024 Points	1024 Points		
INTERFACE				
Left side interface	HDMI 1.4A			
	USB 2.0 (MAX 1 A)			
	RS232			
	DC IN (12 ~ 15 V)			
Top interface	TUNER	3 tuners in 1(DVB-S2,DVB-T2,DVB-C)		
Buttons on panel	4 LED lights	On /Off, Charge, Lock, RF Power		
	24 Buttons	(TV, Spectrum, Meter, Options, Menu, Band, Up, Down, Left, Right, Enter, Esc, 0-9 Power)		
Housing (cabinet)	Dimensions	269 mm (L) x 187 mm (W) x 62.5 mm (H)		
Accessories	Adapter	15 V-2,5 A		
	Car charger	Yes		
	Carrying bag	Included (space for tools and pocket)		
	F female to female connector	Yes		



#### EKSELANS by ITS ITS Partner 0.B.S. S.L

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