Televes H30 Plus QAM Sprectrum Analyzer Owner's Manual

Contents

Televes H30 Plus QAM Sprectrum Analyzer

Specifications:

- Frequency Range:
  - H30+: 5 – 1002 MHz
  - H30D+: 5 – 1220 MHz
  - H30D+ FULL: 5 – 1794 MHz
- Screen: 2.8″ TFT 400 x 240 full color
- Wireless Connectivity: Yes
- Ethernet Interface: Yes
- USB Interface: Yes
- QAM Digital Measurements: Yes
- ATSC 1.0 Digital Measurements: Yes
- ATSC 3.0 Digital Measurements: No
- DOCSIS 3.1: No
- WiFi Analyzer: Yes
- IPTV Analyzer: Yes
- HEVC Displaying: Yes
- MPEG Service Information: Yes
- IP Speed Test: Yes
- Long Term Monitoring: Yes
- Management Interface Access: Yes
- Dimensions: 175x100x52 mm
- Weight: 529 g.
- Color: Black & Grey

Product Usage Instructions

Setup and Connection:

Connect the H30+ spectrum analyzer to the cable system using either the wireless or Ethernet connection. Ensure the device is securely connected before proceeding.

Power On and Navigation:

Press the power button to turn on the analyzer. Use the touchscreen or your mobile device to navigate through the different functions and tools available.

Channel Monitoring:

Select the desired channel for automatic monitoring. Check connectivity and view information about QAM channel program content using the provided functions.

Remote Management:

You can manage the meter remotely using your Android, iOS device, or PC. Utilize the H30Suite web management application for various tasks such as checking measurements, accessing quality profiles, and real-time consultation of the user manual.

FAQ

Q: Can I use the H30+ spectrum analyzer with ATSC 3.0 digital networks?

A: No, the H30+ is designed for digital networks with ATSC 1.0 and QAM channels. For ATSC 3.0 compatibility, consider other models within the Televes product range.

Q: How do I access the WiFi Analyzer feature on the H30+?

A: The WiFi Analyzer feature can be accessed through the menu on the analyzer screen. Navigate to the appropriate section to perform WiFi analysis tasks.

H30+ (QAM) spectrum analyzer with ATSC 1.0

All the functions you need, also in CATV cable systems
The H30+ is a lightweight, compact and robust equipment that includes a full range of tools and functionalities to successfully perform installation, maintenance and troubleshooting tasks in both analogue networks and digital networks with ATSC and QAM channels. It stands out for incorporating automatic monitoring of the desired channel, double-check connectivity and the information about a QAM channel program content, among other powerful functions.
Operating the meter is more flexible thanks to its multiscreen system: the user can manage it remotely and display its contents on their own mobile device (Android, iOS or PC). In addition, to make the use of the smartphone even more natural, a universal bracelet is provided for devices up to 6″. Just as the rest of the meters fully designed and manufactured in Televes Corporation, H30+ takes advantage of the digital processing technology, and provides the user with a speed and mathematical accuracy equivalent to that of laboratory equipment.

Ref. 593980

EAN13 8424450238059

Packing

Box 1 pcs.

Physical data

Net weight: 1,500.00 g
Gross weight: 1,500.00 g

Highlights

- Professional RF signal analyzer: decoding and display of video and audio parameters of received ATSC 1.0 and QAM signals
- Multiscreen system with touch control: display the meter screen on a mobile device, and control the meter by touch gestures and buttons
- Wireless connectivity
- Real-time digital processing
- Light-weight handheld meter
- User-friendly interface
- With Wi-Fi / IPTV analyzers and HEVC display as options
- Automatic parameter detection: the H30+ automatically detects signal type (A/D) and parameters to be measured (constellation, symbol rate, etc.)
- All measurements are carried out by pressing a single button equipped with Pass/Fail indicators to reduce installation errors

Discover

Differences between the H30+ and H30D+ models
Within the H30+ and H30D+ range of meters, we can find different models with specific functionalities depending on the needs of the cable installers. The comparative table compiling the most representative differences between them is detailed below:

		H30+	**H30D+**	**H30D+ FULL**
Frequency range		5 … 1002 MHz	5 … 1220 MHz	5 … 1794 MHz

Screen		2.8″ TFT 400 x 240 full color	2.8″ TFT 400 x 240 full color	2.8″ TFT 400 x 240 full color
Multi-screen with touch control on mobile device		OK	OK	OK
Smartphone armband		OK	OK	OK
Wirelesss connectivity		OK	OK	OK
Ethernet interface		OK	OK	OK
USB interface		USB (A-type)	USB (A-type)	USB (A-type)
QAM digital measurements		OK	OK	OK
ATSC 1.0 digital measurements		OK	OK	OK
ATSC 3.0 digital measurements		X	X	OK
DOCSIS 3.1		X	OK	OK
WiFi Analyzer		OK(*)	OK(*)	OK
IPTV analyzer		OK(*)	OK(*)	OK
HEVC displaying	on the meter	OK(*)	OK(*)	OK
	on the mobile device	OK(*)	OK(*)	OK
MPEG service information		OK	OK	OK
IP speed test		OK	OK	OK
Long Term Monitoring		OK	OK	OK
Management interface access (datalogs, channel plan..)		Wireless / Ethernet cable	Wireless / Ethernet cable	Wireless / Ethernet cable
Dimensions		175x100x52 mm	175x100x52 mm	175x100x52 mm
Weight		529 g.	633 g.	633 g.
Color		Black & Grey	Black & Orange	Black & Orange

Features

- **Multiscreen and remote control**

  Controllable from any Android or iOS device or a PC with H30Suite

The H30+ multiscreen system allows you to display the meter screen on your smartphone or tablet to wirelessly control the meter or just for the sake of working with a larger screen.
The installer may wirelessly access the equipment at any time from anywhere in the installation (depending on the local network connection range), with the convenience of always using his/her own device.
Simply install the H30Suite App (ref. 100016) on your device and connect it to the Wi-Fi network generated by the meter (AP mode).

- **Wireless connectivity**
  Wireless access to the meter

Equipped with Wireless connectivity, the equipment allows secure access through an Android or iOS device, or a PC. The web management application H30Suite (ref. 100016) may be used to check and export stored measurements, access to quality pro?les, meter settings cloning, meter registration through a friendlier interface or real-time consultation of the user manual.

- **Rugged and Light Weight**
  Total reliability

A unique dual injected rubber and polycarbonate plastic housing ensures the best protection and durability. Weighing only one pound, the H30+ is comfortable to carry and use. You can put it in your pocket or hang it from its sturdy built-in grommets using the provided shoulder strap you will hardly know its there!

- **Intuitive User Interface**
  Reducing the learning curve

Easy to use one-level menu structure with very intuitive functions for increased usability, faster operation and maximum productivity. No function requires more than three successive button pushes to achieve the desired operation. It doesn?t get any easier than this, you will fly through the functions without ever reading the user manual.

- **Comprehensive Functionality**
  Pass/Fail indicators

A full range of functionalities such as Single-channel measurements, Constellation diagram, Spectrum analyser, Service identi?cation, Data logs, Channel plan auto-learning, and more.

Accuracy and Speed
Real-time digital processing

Designed to instantly obtain all the information about the signal in real time, it is a true milestone in ?eld work. H30+ provides the required accuracy and speed to detect minor transient radiation, or spurious signals that could a?ect the system during signal reception.

100% Automatic
Signal detection

Fully automatic, it detects the parameters of different modulations with no need for conguration. H30+ will detect at once whether the input signal is analogue or digital, and will determine its constellation, symbol rate and other modulation parameters, providing an instant reading without any user intervention.

Long Battery Life
Up to 4 hours on a full charge

High quality Li-Ion batteries, in conjunction with our advanced low power consumption technology, provide enough juice for even the largest jobs. One hour of fast charging will provide almost three hours of extended operation.

The H30+ is entirely designed by Gsertel, a company within Televes Corporation, where our team of experienced and highly quali?ed telecommunication engineers managed to integrate digital processing in a handheld unit of 1lb of weight. Each H30+ includes more than 5,000 components and integrated circuits.

LT Monitoring
Automatic monitoring of the desired channel

The H30+ Long Term Monitoring Function allows the automatic monitoring of the selected channel. Once the time interval between two consecutive measurements has been selected, the H30+ will automatically take all the measurements of the channel selected and store them in memory.

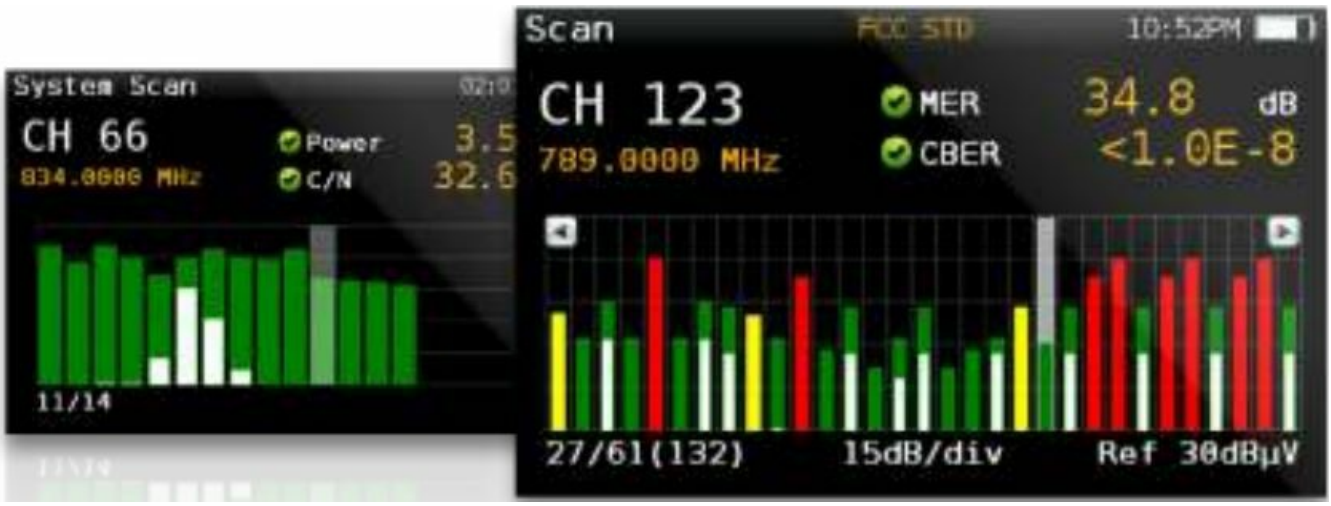
Channel Information
The less the better

Sometimes, taking a quick glance at one channel is all you need. The advanced H30+ single-channel measurement option automatically detects the channel type, displaying the audio and video levels, A/V and C/N for analogue signals, and power, C/N, and appropriate quality measures for each type of digital signal. All these measures are taken by means of one single button; at that point, all indicators will be activated and display the ? Pass/Fail? condition based on the thresholds speci?ed by the user. Easy-to-interpret results, even for junior technicians.

Tilt Function
Always in balance

Get a quick view of your signal level differences over a speciffed frequency range, so you can apply attenuation or equalization to adjust them. Take the meter to your farthest extents and see at a glance what carriers' power levels are out by their red, yellow, and green colors. Any number between 2-12 analog, digital or DOCSIS channels can be measured using the tilt measurement, and you can even select which carriers are your reference points to determine the tilt between any of the channels included in the measurement.

System Scan
With channel plan auto-learn



Learn which channels are present in your distribution with the ultra-fast learning plan feature. Then select any stored plan and scan every existing analog and digital channel in real time to determine the overall frequency response of the system. The scan measurement leverages the location based thresholds to clearly show whether or not signal levels comply with the cable system?s speci?cations by their green, yellow and red bar level indicators. This gives an easy-to-understand real-time view of the distribution, including the BER and MER values of the selected channel.

Voltmeter & Hum
Cover all your bases

Don’t want to worry about bringing a separate volt meter with you? No problem, the H30+ will do that too. The H30+ will also give you a Hum percentage to help you diagnose those ground and power interference problems that may result from a defective er supply or faulty/overloaded power inserters.

Reverse Path Ingress Scan
Maximum, average, peak

Help identify reverse path problems before your customers are affected. Poorly shielded coaxial cable and faulty terminations are important sources of ingress noise, which can easily add up in the return due to the large number of subscriber-generated signals that are sent back to the headend. The combined and amplified interference is often responsible for service disruption, so having a good reverse path ingress scan tool is always a must.

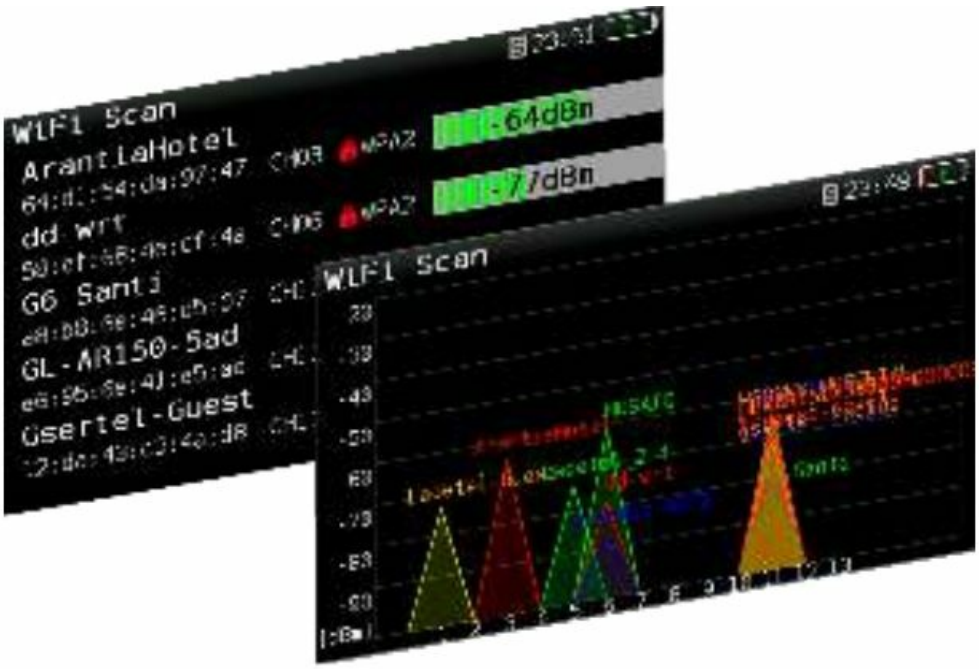
IP Speed Test
Double-check connectivity

Need a quick check of your data network at the headend or at a customer's unit? The H30+s IP Speed Test allows you to check your basic network performance parameters, so you dont need to get your laptop out. This includes your upload and download speed, as well as your ping times and lost packets statistics.

Service Info
Study MPEG details

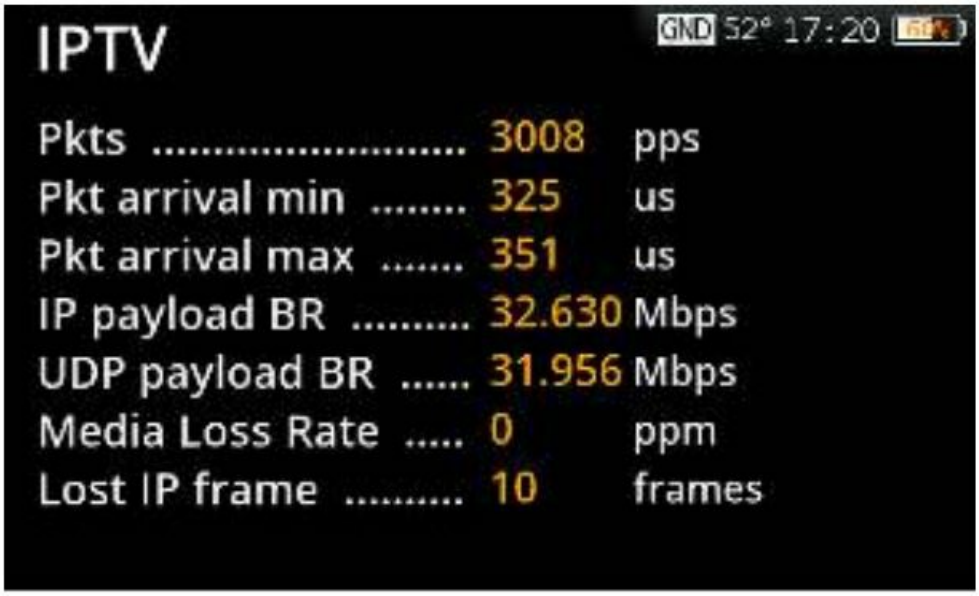
Do you want to know what program content is on that QAM channel?The H30+s Service Info feature will tell you. In addition to the short description of the service, you will get the important parameters including the NIT, PAT, and TSID for the channel, and for the individual service you will get the SID and the PID, encode type, resolution, and bitrate for both the audio and video, all of which greatly help when troubleshooting your encoder configuration.

Wi-Fi Analyzer (*)
All bands (2.4 and 5 GHz)



This functionality allows a full analysis of the Wi-Fi band for the automatic detection of all the networks. Each of them is identified by name, and the power of the signal at the access point is also displayed. Two display modes are provided for the user to choose. The list mode provides a list of the detected networks with the associated data and power, while the map mode represents them on a dual-axis map: power vs. frequency.
(*) Optional feature: Ref 593250.

Services and IPTV Analyzer (*)
IPTV and RF services information



Allows the demodulation and analysis of IPTV streams (both Unicast and Multicast), not only through video display but also by displaying the total bitrate and bitrate for each service. The relevant information for each service is already given: SID, VPID, AID, video profile, bit rate for both audio and video.
In addition, this option completes the RF measurements since all this information by service is analyzed as well for this type of signals. For IPTV signals, specific protocol measurements (UDP/RTP) are also analyzed, such as UDP format, Media Loss Rate, Lost IP frames.
(*) Optional feature: Ref. 593251.

HEVC display on the meter (*)
and also on your mobile device

This functionality supports HEVC H.265 new compression format and allows the display of video signals with a maximum Full HD resolution (1920 x 1080). Information can be displayed both on the meter screen or on the mobile device (multiscreen mode) as long as your hardware is H.265 compatible (usually a smartphone, tablet or PC).
(*) Optional feature: Ref. 593252.

Technical specifications

H30+	
Mechanical Specifications	
Screen	2.8″ TFT 400 x 240 full color
Weight	529 g (1.16 lb)
Dimensions	175x100x52 mm / 6.9×3.9×2 (HxWxD)
AC Adaptor	Input: 100-240 V~ 50-60 Hz Output: 12 VDC, 3 A
Battery	Li-ion (7.2 VDC, 2550 mAh)
Battery range	<4 hours
Interfaces	Ethernet 1 Gb, USB 2.0
Resilience	It withstands drops From 1 m (3.2 ft) onto concrete on all sides
Storage capacity	1.5 GB (internal) for measurements
Impedance	F-type connector – 75 Ohm
Technical Specifications	
Frequency	5 to 1,002 MHz
Resolution	50 kHz
Input Impedance	75 Ohm
Input level	45 – 125
Standards	ITU-T J.83 Annex A/B/C standard
Modulation	16/32/64/128/256 QAM, QPSK
Symbol Rate	2 to 6.9 Msps
MER	40 dB
Digital Measurements QAM	Power MER C/N PreBER (Annex B) PostBER (Annex B) BER (Annex A/C) Constellation with Zoom Capability
Analog Measurements	V/A ratio C/N
MPEG Service Information	D
IP Speed Test	D
Advanced API	D
Wireless Connectivity	D
Long Term Monitoring	D
Wi-Fi Analyzer	Optional

Services and IPTV Analizer	Optional
HEVC display	Optional

https://www.televes.com

Documents / Resources

	Televes H30 Plus QAM Sprectrum Analyzer [pdf] Owner's Manual H30 Plus, H30 Plus QAM Sprectrum Analyzer, QAM Sprectrum Analyzer, Sprectrum Analyzer, Analyzer

References

- Home | Televés
- User Manual