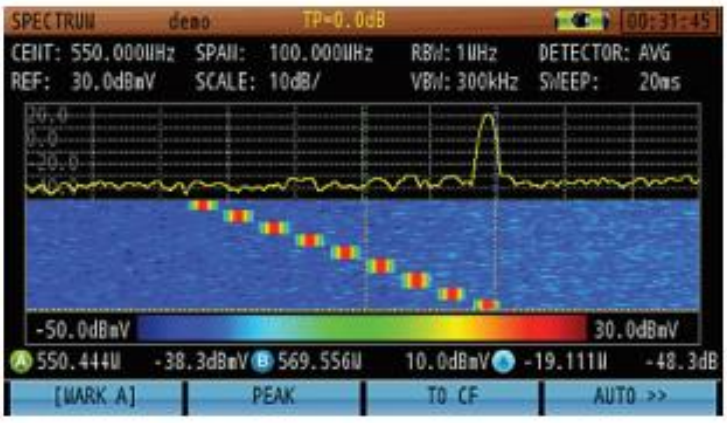
MEDIDOR DE CAMPO 1GHZ / RET./ DOCSIS 3.0



DESCRIPCION	Medidor y Analizador + QAM + DOCSIS 3.0
MODELO	DS2500Q
CODIGO WT	4271517

Casa Central
Domingo French 831, B1603BNI, Villa Martelli, BS AS, Argentina
Tel:(54) 011-4709-6650
ventas@wiretechsa.com.ar

Sucursal Córdoba
Diaguitas 3138,Cordoba, CP 5008, Argentina
Te:(54) 0351 476-1313 – 0908
sucursalcordoba@wiretechsa.com.ar

www.wiretechsa.com.ar

1 - CARACTERISTICAS

- Análisis de espectro de alta velocidad: 4 ~ 1000 MHz
- Cable módem DOCSIS 3 0 integrado
- Generador de señales ascendentes integrado (sin FEC)
- Compatible con ITU- -T J 83 Anexo A / B / C
- Error Vector Spectrum: identifica señales de interferencia bajo los operadores QAM, sin interrupciones en el servicio
- Auto prueba

Five Multi-user Defined Channel Plans

Several technicians or contractors work with more than one HFC network and it is very practical to have different channel lineups to choose from. The unit allows up to five (5) different user defined channel plans. Analog, digital and custom frequencies can be configured in the unit by using the automated learned channel plan from an RF drop or by downloading from the PC file using the Toolbox software. The user can select up to 12 frequencies in each of the 5 user defined plans and assign them to a favorite/tilt channel plan.

QAM Analysis and Channel Measurements

MER plus PRE & Post BER measurements with a several time slots (5 minutes, 15 minutes, 30 minutes, 60 minutes, 2 hours, 6 hours, 12 hours, 24 hours, and 48 hours) can be analyzed with the DS2400. This includes viewing of the constellation diagram. The unit is compatible with 16/32/64/128/256 QAM modulation and provides power measurements feature of QPSK and COFDM digital carriers.

Spectrum Analysis and Measurements

The DS2400Q has a spectrum mode, which allows viewing of the full spectrum. For troubleshooting reverse path challenges, the unit can set to display 5 to 65 MHz frequency spans providing an additional feature to the technician when dealing with upstream data signals. The marker function is included with the spectrum mode and transient anomalies can be captured with the max hold feature.

Full Spectrum Scans with Marker Feature

The DS2400Q supports 160 channels scanning function allowing testing the flatness and the amplitude of the HFC network quickly. With the help of the marker, the technician can quickly determine the anomalies related to mismatches caused by poor grounding or damaged transmission lines.

HUM Network Measurement

The Hum measurement helps the technician identify and troubleshoot anomalies which may result from defective capacitors, faulty line splitters, or couplers due to lightning or excessive current overloads. Both 60 & 120 Hz tests are performed w/400Hz LPF measurements.

Auto Diagnostic User-defined Limit Test (Pass/Fail)

The auto test simplifies the test by displaying pass/fail results. The pass/fail limit can be set for Power levels, MER, PRE-BER, POST-BER, Spectrum Analysis, Tilt, and HUM measurements. With its simple save function, the technician will no longer be required to manually take note of the results. As a result, more installations or service calls may be performed in a day. Additionally, every measurement is recorded; there is no room for errors. This forces performance accountability of each location, thus avoiding churn, which may be costly to the organization.

User-defined Tests

The five (5) channel plans and the ability to group various tests, which can be performed with a simple icon selection, enables the technician to be very efficient and productive. The tests include Level, Tilt, Spectrum Analysis, HUM and Performance related Test Limits for both analog and digital carriers.
Once the test data results are stored in the instrument, they can be recalled, viewed, and analyzed.

File Management - Test Data Storage

Several test data can be saved and stored as analog carriers or frequencies, QAM carriers or digital frequencies, channel scan, tilt, frequency spectrum measurement and HUM.
The results are saved in the File Directory menu, with name of the file, time and date. These data records may be uploaded to a PC with the Toolbox software for reports, analysis, and printing.

Voltage Measurement - Battery and Charging

The unit can measure battery voltage, trunk & distribution line voltage of the cable system, identifying AC or DC automatically. With the intelligent power management system, the battery provides approximately 5 hours of continued operations when fully charged.

Standard Accessories

The DS2400Q includes the following accessories:
Protector rubber bumper, carrying bag with shoulder strap, data cable (serial to USB), two (2) "F" connectors, AC/DC power adaptor/charger, Toolbox software and user's manual.

2 - ESPECIFICACIONES

Integrando múltiples funciones en un solo instrumento de mano,
El nuevo DS2500Q es un potente analizador QAM de TV digital con conjunto de medición integral diseñado específicamente para Pruebas, resolución de problemas y mantenimiento de redes HFC
Las funciones principales del DS2500Q incluyen Enhanced Spectrum Análisis, análisis de TV analógica y digital, análisis DOCSIS 3 0,
Generador de señal ascendente, prueba de Ethernet y prueba automática
La revolucionaria función EVS permite a los usuarios detectar distorsiones coherentes que se esconden debajo de los portadores QAM, sin interrumpir el servicio El DS2500Q es compatible con la computadora de Deviser
kit de herramientas de software, incluido con cada unidad, para generar datos transferir un chasquido

Ordering Information

SKU No.	Description
DS2500Q	Digital Cable TV QAM Analyzer, 4 ~ 1000 MHz, 75Ω or BNC
DS2500-808	DOCSIS 3.0 8x4 Cable Modem and Upstream Signal Generator without FEC
DS2500-810	SYNCOR Asset Management
DS2500-811	SYNCOR Certificate
DS2600-200	ATSC (8VSB) Measurement
AE4000-733	2-Prong Power Cord plus Ground (Europe except UK)
AE4000-734	3-Prong Power Cord plus Ground (US)
AE4000-735	3-Prong Power Cord plus Ground (UK)
AE4000-736	3-Prong Power Cord plus Ground (Australia)
DS2500-012	English Instruction Manual (hard copy)
SFL10-KK	Toko Type F(f) to F(f) Connector

3 - ESPECIFICACIONES

Downstream Spectrum Analysis	
Frequency Range	4MHz ~ 1000MHz
Frequency Stability	± 1 PPM (0°C ~50°C)
Frequency Span	0MHz ~ Full span
Frequency Step	1 kHz
Resolution Bandwidth filters(-3dB)	30kHz, 100kHz, 300kHz, 1MHz, 3MHz
Video Bandwidth filters	30Hz, 100Hz, 300Hz, 1kHz, 3kHz, 10kHz, 30kHz, 100kHz, 300kHz, 1MHz, 3MHz
Display Scale and Range	1, 2, 5, 10, 20 dB/Div; 8 vertical divisions
Sweep Time	20ms ~ 25s
Input Level Range	-60dBmV ~ +60dBmV
Dynamic Range	65dB (300kHz RBW)
Sensitivity	-50dBmV (300 kHz RBW, Pre-amplifier On)
Attenuation	0~40dB in 1dB steps
Pre-amplifier	Manual, 18dB Gain
Accuracy of Measurements	<±1.0dB@+25±5°C (typical value)
Measurement Detector	Positive Peak, Negative Peak, Sample, Average, RMS
Reference Level	-80dBmV ~ +70dBmV
Markers	2 vertical markers
Upstream Spectrum Analysis	
Frequency Range	4~46MHz; 4~68MHz; 4~88MHz; 4~120MHz; 4~210MHz
Frequency Span	42/64/84/116/206MHz, zero span or manual selections (max 206MHz)
RBW	100kHz, 300kHz
VBW	30Hz, 100Hz, 300Hz, 1kHz, 3kHz, 10kHz, 30kHz, 100kHz, 300kHz, 1MHz, 3MHz
Display Scale and Range	1, 2, 5, 10, 20 dB/Div
Sweep Time	20ms ~ 25s
Input Level Range	-60dBmV ~ +60dBmV
Attenuation	Automatic, 0~40dB
Pre-amplifier	Manual, 18dB Gain
Accuracy of Measurements	<±1.0dB@+25±5°C (typical value)
Measurement Detector	Positive Peak, Negative Peak, Sample, Average
Markers	2 vertical markers
Analog TV Measurement	
Standards	B/G, I, D/K, L/L', M/N
Color Standards	NTSC, PAL, SECAM
Frequency Step	10kHz
Level Measurement Range	-40dBmV ~ +60dBmV
Accuracy	<±1.0dB @+25 ±5°C (S/N >30dB)
Level Resolution	0.1dB
Resolution Bandwidth	300 kHz
CCN	>51dB (Requires +10 dBmV carrier level)
CTB/CSO	≥61dB with ±2.0dB Accuracy
HUM Measurement	1 ~ 15%: ±0.5% (1~5%): ±1.0% (5~20%)
Tilt	Up to 16 channels
Pre-amplifier	Automatic, 18dB Gain
Attenuator	Automatic, 40dB

3 - ESPECIFICACIONES

Specifications (continued)

Digital TV Measurement	
Frequency Range	46 ~ 1000MHz
Power Level Range	-30dBmV ~ +50dBmV
Level Resolution	0.1dB
Accuracy	< ±1.5dB@+25 ±5°C (C/N>20dB)
Modulation Type	16, 32, 64, 128, 256 QAM (J.83 Annex A and C); 64, 256 QAM (J.83 Annex B)
Interleave Depth	(128, 1) ~ (128, 4) for J.83B; (12, 17) for J.83 A/C
Symbol Rate	4.0MS/s ~ 7.0MS/s
MER	>41dB; Accuracy: ±2.0dB
BER	1E-3 ~ 1E-9
Constellation	16, 32, 64, 128, 256 QAM
Cable Modem Measurement	
Supported Standards	DOCSIS 1.1, 2.0, 3.0; EuroDOCSIS 1.0, 1.1, 2.0, 3.0
Downstream Demodulation	64, 256QAM
Downstream Frequency Range	>91MHz (US); >100MHz (EU)
Downstream Maximum Speed	Up to 304Mbps (6MHz); And 400Mbps (8MHz)
Downstream Channel Bonding	Up to 8 channels
Downstream Bandwidth	6MHz / 8MHz
Downstream Input Signal Level	-15dBmV ~ +15dBmV
Upstream Frequency Range	5 ~ 42MHz; 5 ~ 65MHz; 5 ~ 85MHz
Upstream Signal Bandwidth	TDMA: 200/400/800/1600/3200/6400kHz; S-CDMA: 1600/3200/6400kHz
Upstream Channel Bonding	Up to 4 channels
Upstream Output Signal Level	TDMA: 8~54 dBmV (32/64 QAM); 8~55dBmV (8/16 QAM); 8~58dBmV (QPSK) CDMA: 8~53dBmV (all modes)
Upstream Maximum Speed	120Mbps (4 channels bonding)
Upstream Signal Generator	
Signal Modulation	CW, QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 256QAM
Symbol Rate	160 kS/s, 320 kS/s, 640 kS/s, 1.28MS/s, 2.56MS/s, 5.12MS/s
MER	>38dB; Accuracy ±2dB
Frequency Range	5MHz ~ 85MHz
Frequency Adjustable Steps	1MHz
Signal Level Range	8.0 ~ 58dBmV (CW, QPSK)
Level Adjustable Step	1dB
Others	
RF Input	75Ω F-type connector
USB	USB 1.1
Ethernet	RJ45, 10/100T Ethernet
Display	4.3" 480x272 TFT LCD
AC/DC Adapter	100 ~ 240 V/50 ~ 60Hz (AC); 12V / 3A (DC)
Battery	Li-ion, 7.4 V/7.8Ah
Charge Time	~ 4 hours
Working Time	> 6 Hours
Dimension (W×H×L)	245mm×130mm×60mm (9.6in x 5.1in x 2.4in)
Weight	About 1.5kg (3.3 lbs)
Work Temperature	-10 ~ +50 °C
Storage Temperature	-20 ~ +60 °C