

DS2500 Series QAM Analyzer

Overview

DS2500 series is designed for HFC network installation, maintenance and troubleshooting. This QAM analyzer could meet all types of measurement of QAM & Analog TV Signal Index, Cable Modem and EoC.

Key Features

- 4 inch TFT LCD
- USB storage and upgrade
- Communicate with PC via LAN
- Module designed: Simple to upgrade to another model

Model Guide

Module	Configuration
DS2500	Basic
DS2500C	DS2500 plus Cable Modem module (Docsis 1.0/1.1/2.0/3.0 with 8*4 Channels Bonding)
DS2500R	DS2500C plus network communication module
DS2500R+	DS2500R plus units communication module
DS2500E	DS2500 plus EoC module



Specifications

Model	DS2500	DS2500C	DS2500R	DS2500R+	DS2500E
Frequency					
Range	5 MHz ~ 1000 MHz				
Resolution	10 kHz				
Accuracy	$\pm 10 \times 10^{-6}$				
DVB-C					
Power Level	30 dBμV ~ 110 dBμV				
Level Resolution	0.1 dB				
Level Accuracy	± 1.5 dB (C/N >20 dB)				
MER	~ 40 dB				
MER Accuracy	± 2 dB				
BER	1E-3 ~ 1E-9				
Modulation Type	16/32/64/128/256 QAM ITU-T J.83 ANNEX A/B/C				
Constellation	√				
Statistics	√				
Analog CATV					
Level	30 dBμV ~ 120 dBμV				
Level Resolution	0.1 dB				
Level Accuracy	± 1.5 dB				
Other Functions	C/N, V/A, Tilt, Limit Test, Auto Test, Channel Sweep/Management, Trunk Volt				
Spectrum Analysis					
Level Range	10 dBμV ~ 120 dBμV				
Level Resolution	0.1 dB				
Level Accuracy	± 1.5 dB				
Dynamic	60 dB				
RBW	30 kHz / 100 kHz / 300 kHz / 1 MHz / 3 MHz (Self-Adapt)				
Sweep Time	300 ms / field (8 MHz)				

Model	DS2500	DS2500C	DS2500R	DS2500R+	DS2500E
Span	Max. 995 MHz				
Return Noise Test	√				
QAM Source					
Frequency	×	5 MHz ~ 65 MHz			×
MER	×	>38 dB			×
Modulation Type	×	QPSK; QAM (8/16/32/64); CW			×
SR	×	160/320/640/1280/2560/5120 KSym/s			×
Level Output	×	68 dBμV ~ 120 dBμV			×
Communication Module					
Freq-Transmission	×	×	5 MHz ~ 65 MHz	×	
Freq-Receiving	×	×	100 MHz ~ 110 MHz	×	
Frequency Accuracy	×	×	±10 kHz	×	
Modulation Type	×	×	FSK, f = 67 kHz	×	
Level Output	×	×	90 dBμV ~ 110 dBμV (1 dB Step)	×	
Level Accuracy	×	×	±1.5 dB	×	
Phase Noise	×	×	-100 dBc /Hz @ 400kHz	×	
Date Baud Rate	×	×	38.4 Kbps	×	
Receiving Range	×	×	40 dBμV ~ 110 dBμV	×	
Others					
Dimension	247 mm × 130 mm × 67 mm				
Weight	1160 g				
Battery	14.8 V / 2.1 AH Rechargeable Lithium-Ion				
Charge Time	4 ~ 5 Hours				
Working Time	>5 Hours				

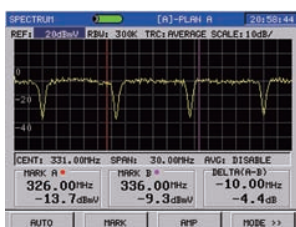
DS2500 Series QAM Analyzer

1. DS2500

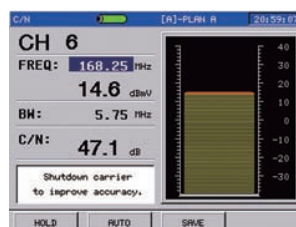
DS2500 is the basic model with high performance, which supports all types of measurement of QAM and analog signal indexes such as HUM, Modulation Depth, MER, BER, Constellation, Spectrum, Power Level, Sweep, etc.



Constellation



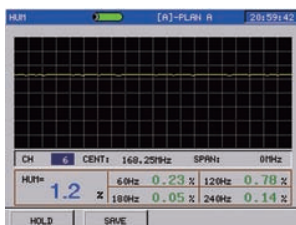
Spectrum



C/N



Depth of Modulation



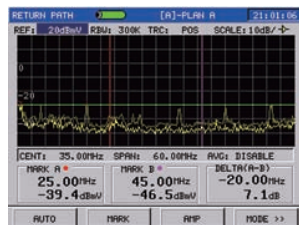
HUM



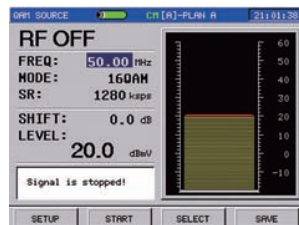
BER Statistic

2. DS2500C

DS2500C has the cable modem module which supports Docsis 1.x, 2.0 and 3.0. It provides CM Register& Statistic, Ping, FTP, Web Browser, QAM Source, Return Spectrum Sweep, etc.



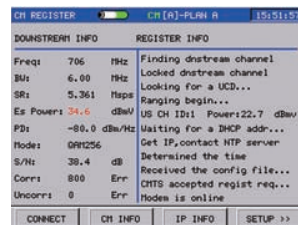
Return Path Spectrum



QAM Source



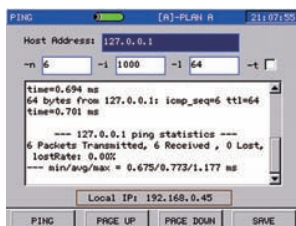
Web Browser



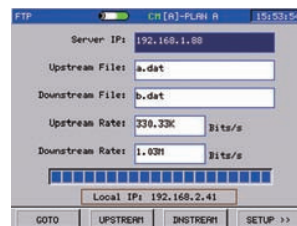
CM Register



CM Information



Ping

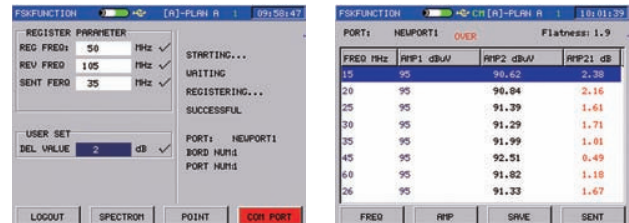
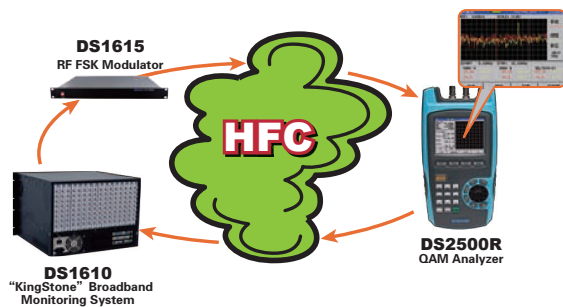


FTP

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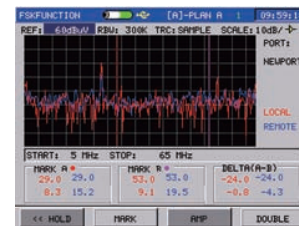
3. DS2500R

DS2500R adds communication module on top of DS2500C in order to communicate with DS1610 Kingstone HFC Broadband Monitoring system which is settled at head end. It could assist operator make both forward and return paths debugging more effective and ensure the service quality.



Register

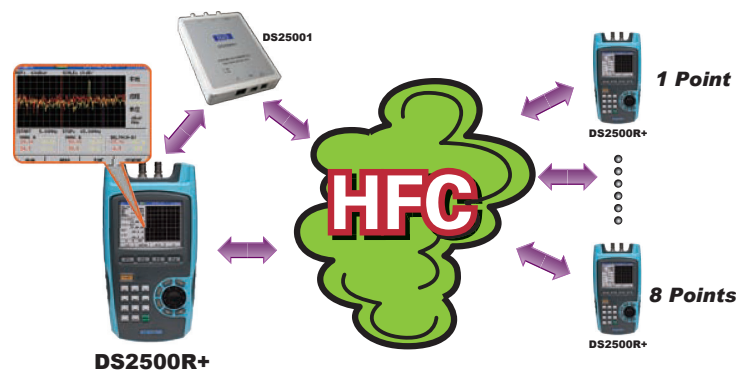
Troubleshooting



Debugging between Local and Remote

4. DS2500R+

DS2500R+ adds the designated software which supports communication between multiple DS2500R+, and it is very helpful to troubleshoot errors between network nodes without disconnecting the signal.



5. DS2500E

DS2500E adds EoC module on basis of DS2500, which is compatible with HomePlug AV Standard.

