JDSU DSAM-900B
w/ Deep Interleave
Product Specifications

Frequency

Range	4 to 1,000 MHz
Accuracy	±10 ppm at 77°F (25°C)
Tuning resolution	Analog 10 KHz
	Digital 50 KHz
Channel bandwidth	Models ending in A, 8 MHz
	Models ending in B, 6 MHz

Level measurement, analog

Signal types	CW, video and audio
	(NTSC, PAL, and SECAM)
Range[1]	–40 to +60 dBmV
Resolution	0.1 dB
Resolution bandwidth	280 KHz
Accuracy[2]	±1.5 dB typical @ 25°C
Carrier-to-Noise	Input @ ≥ 6 dBmV
	30 to 45 dB ± 2 dB
	45 to 48 dB ± 3 dB

Level measurement, digital

Modulation types	QPR, QPSK, QAM
	(DVB/ACTS)
Range[1]	–40 to +60 dBmV
Resolution	0.1 dB
Accuracy[2]	±2.0 dB typical @ 25°C

Downstream QAM demodulation

Modulation type	64 and 256 QAM, ITU-T J.83
	Annex A, B or C (selectable)
Input range (lock range) [3]	–15 to +50 dBmV
	from 55 to 1000 MHz
BER[4]	Pre- and Post-FEC 10-4 to 10-9
MER[5]	Range 64 QAM: 21 to 35 dB
	Accuracy ±2 dB (typical)
	Range 256 QAM: 28 to 35 dB
	Accuracy ±2 dB (typical)
EVM[5]	Range 64 QAM: 1.2% to 5.8%
	Accuracy ±0.5% (1.2% to 2.0%)
	±1.0% (2.1% to 4.0%)
	±1.4% (4.1% to 5.8%)
	Range 256 QAM: 1.1% to 2.4%
	Accuracy ±0.6%

Symbol rate

Annex A,
5.057 to 6.952 Msps (64 and 256 QAM)
Annex B,
5.057 Msps (64 QAM) and 5.361 Msps (256 QAM)
Annex C,
5.274 Msps (64 QAM) and 5.361 Msps (256 QAM)

Test Point Compensation (user editable)

Forward Path TPC	Max 100 dB Total
	Forward External Loss (dB): 0 to 50
	Forward Probe Loss (dB): 0 to 50
Reverse Path TPC[6]	Max 55 dB Total
	Reverse Internal Loss (dB): 0 to 55
	Reverse External Loss (dB): 0 to 55
	Reverse Probe Loss (dB): 0 to 55
Reverse Telemetry Level (dBmV)	0 to 55
Reverse Sweep Insertion Level (dBmV)	0 to 55

Interfaces

RF	75 ohm, F81 or BNC option
	Max. sustained voltage 100 VAC, 140 VDC
RS232	Standard via DB9 on charger
	module or optional direct cable
Printer compatibility	Epson and Citizen
Ethernet	RJ45, 10 base T,
	TCP/IP and UDP supported
USB	v1.1 host mode, 150 mA
	maximum slave (future firmware release)

Standards compliance

Shock and vibration	IEC 60068
Drop	EC 61010
Handle stress	IEC 61010
Water resistance	MIL-STD-810E
Safety – emissions	EN 55022
Safety – immunity	EN 61000

General

Display	320 x 240, grayscale
	Selectable back light
Language support	
	(user interface and help system)
	English in all models
	No-charge second language
	option of Spanish, French, German,
	Japanese, Polish or Chinese
Dimensions	
	Model 900B:
	4.75 x 9.75 x 3.25 in
	(12 x 25 x 8.25 cm)
Weight	
	Model 900B:
	3 lb 4 oz (1.5 kg)
Storage and operating temperature range	
	0 to 120°F; –20 to +50°C
Power	
	Li-Ion removable pack, Standard
	Super Capacity Li-Ion removable pack, Optional
Battery life	
	Standard Li-Ion, 4 hours (typical)
	Super Capacity Li-Ion, 8 hours (typical)
Charge time	
	Standard Li-Ion, 6 hours (typical)
	Super Capacity Li-Ion, 12 hours (typical)
Power supply input	90-264 VAC, 47-63 Hz

Upstream spectrum (ingress scan)

Frequency range	Models ending in B,
	4 to 45 MHz
Sweep rate	Less than 2 seconds
Display scaling and range	
	5 and 10 dB/division; 6 vertical divisions
Resolution bandwidth	280 kHz
Range[1]	–40 to 60 dBmV (typical)

Downstream spectrum (forward scan)

Frequency Range 40 to 1000 MHz
Sweep rate Less than 2.5 seconds
Display scaling and range
5 and 10 dB/division; 6 vertical divisions
Resolution bandwidth 280 kHz
Dwell 1 ms
Span 50MHz or 10MHz zoom
Range$_{(1)}$ –35 to 60 dBmV (typical)

Constellation

Modulation type 64 and 256 QAM
Zoom capability Yes

Return QAM Generator (Option)

Frequency Range
Models ending in B: 5 to 55 MHz

Signal Level Range 8 to 58 dBmV
Signal Modulation CW or 16 QAM
Symbol Rates (Msps) 1.28, 2.56, 3.84, 5.12

(1) Total integrated power, detectable range
(2) Accuracy for levels between –20 to 55 dBmV
Additional uncertainty ±0.5 dB across –20°C to 50°C
Additional uncertainty ±1.0 dB from 4 MHz to 15 MHz
(3) Total integrated power, At 64 QAM
(4)DSAM-900B with Deep Interleave can support up to (I,J) = (128, 4)
interleave for ITU-T J.83 Annex B
(5) Accuracy and behavior from 100 MHz to 1000 MHz for
levels between –5 to 50 dBmV (typical)
(6) The sum of the Internal, External and Probe Losses and
the Telemetry level must be greater than or equal to 10.0 and
less than or equal to 55.0