

VRB-12-141 /A(V/UHF) V/UHF Radio Monitoring



TECHNICAL SPECIFICATIONS

Description	Range
Frequency Range	30 to 3000MHz (Extendable to 26.5GHz)
Frequency Resolution	100Hz
Frequency Accuracy	≤ 0.1ppm
Oscillator Phase Noise	-105dBc/Hz@10KHz Offset
Image Frequency Rejection	≥80dB
IF Rejection	≥80dB
Noise Figure	10-12dB typ., f ≤ 2000MHz
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Internal Spurious Level	-100dBm
Sensitivity	Measurement with Telephone Filter acc. to
Scholavity	CCITT Normal Mode
AM :BW = 6KHz,	≤ 1µV (≤ -107dBm), f ≤ 2000MHz
SINAD = 10dB fmod = 1KHz. m = 0.5	≤1.4µV (≤-104dBm), f = 2000MHz to 3000MHz
FM : BW = 15KHz, SINAD = 20dB	$\leq 1 \mu V (\leq -107 \text{dBm}), f \leq 2000 \text{MHz}$
fmod=1KHz, m = 0.5, deviation = 5KHz	≤ 1.4µV (≤-104dBm), f > 2000MHz
SSB : BW = 2.4KHz, SINAD = 10dB	≤ 0.5µV (≤-113dBm)
CW : BW = 300Hz, SINAD = 10dB	≤ 0.22µV (≤-120dBm)
BER	, ,
DEIX	≤%1 FSK(2,4,8),PSK(2,4,8) at SNR=15dB
	≤%1 QAM16) at SNR=18dB
	≤%1 QAM(32) at SNR=25dB ≤%1 QAM(64) at SNR=32dB
IP2	≥55 dBm (linear mode)
IP3 (in Band)	(Low Distortion Mode)
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Dynamic Range	\geq 17dBm, f \leq 300MHz, \geq 20dBm, f $>$ 300MHz
, 0	≥110dB (Offline)/ ≥ 70dB (Online)
ADC Resolution	14Bit
ADC Sample Rate	166MHz
Attenuator	0 to 35dB
AMR & Demodulator	Analog: CW,AM,FM,DSB,ISB,LSB
	Digital:BPSK,QPSK,8PSK,OQPSK
Comband Interfere	16QAM,2FSK,4FSK,MSK,GMSK,32QAM,64QAM
Control Interface	LAN 100/1000Mb/s
Instantaneous Bandwidth	Maximum 80MHz (Extendable to 200MHz)
Display Modes	Waterfall, RF Spectrum
Memory Scan Mode	The Receiver Settings can be Programmed for the
	Monitoring of up to 1000 Channels and
	Scan Speed up to 100 Channels / s
Search Scan Speed	25GHz/s with 30KHz Resolution
IF Recording Time	3 hours with 40MHz bandwidth
Virtual Narrow Band Channels	(Extendable to 10hour and 200MHz Bandwidth)
	8 Simultaneous Channels with Maximum 100KHz Bandwidth
	(Extendable to 32 Channels)
Hand-off Receivers	8 channels (Extendable to 64)
DS Detection & Analysis	SNR:-12dB, GP=30dB with Short Code
Radio Link Detection and Analyses	Link4, link11, link16 (option)
Frequency Hoping Detection	Maximum 3 Signals with 2500hop/s (Extendable to 10000 hop/s)
Burst Detection	Time length > 400 μ S (Extendable to Time Length > 10 μ S)
Offline Analysis Tools	Bit Analyzer and Protocol Analyzer
Antennas	Omni Active Antenna (20-1300MHz) Vertical
(According to customer requirements)	Directional Antenna (80MHz-1300MHz) Vertical
	Directional Active Antenna (1000-3000MHz)
	Vertical and Horizontal
	Omni Antenna (1000-3000MHz)
	Vertical and Horizontal
Environmental and Operational	

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Environmental Test Standard	Mil-STD-810G
Operation Temperature Range (Indoor)	0°C to 50°C
Operation Temperature Range (Outdoor)	-25°C to +65°C
Storage Temperature Range	-30°C to +70°C
Humidity	80% in 40°C for Indoor Parts
	95% in 40°C for Outdoor Parts
Dimensions (W x H x D)	Approx. 85 x 60 x 75cm (One 19" Rack)
Weight	Approx. 120kg
Power Supply	220VAC, Maximum 1KW
MTBF	2000hours
MTTR	20minutes