

7.0. TECHNICAL SPECIFICATIONS

To achieve the following specifications a ½ hour warm-up time is recommended. The specifications are measured under the following channel conditions unless otherwise indicated:

- RF Input Frequency = 880/1940 MHz
- RF Input Level = -30 dBm

All specifications indicate typical performance unless min/max values are stated.

Carrier Path Specifications

Number of Independent RF Carrier Channels	1 or 2
Number of Programmable Frequency Bands	2 per channel
VSWR	
RF IN	<1.5:1
RF OUT	<1.5:1
Channel to Channel Isolation	>100 dB
RF Carrier Frequency Range	
Band1	820-960 MHz
Band2	Filter Type 2: 1700-2000 MHz
	Filter Type 3: 1700-2200 MHz
Channel Amplitude Variation Relative to Nominal Insertion Loss	
1.23 MHz bandwidth	±0.05 dB
40 MHz bandwidth	±0.25 dB
Group Delay Variation	
820-960 MHz	< 1 ns
1700-2000 MHz	< 1 ns
1700-2200 MHz	< 1 ns
Carrier Input Power Range	-55 to 0 dBm
Absolute Max. Input Power	+20 dBm

Carrier Path Specifications: Continued

Carrier Output Power Range		
Standard Output Level Option		
Maximum		input level
Minimum		-60 dBm
Extended Output Level Option		
Maximum		input level - 5 dB
Minimum		-120 dBm
Maximum Carrier Path Insertion Loss		
Standard Output Level Option		0 dB
Extended Output Level Option		5 dB
Carrier Output Power Resolution		
Standard Output Level Option		0.25 dB
Extended Output Level Option		0.10 dB
Carrier Power Output Level Accuracy		± 0.5 dB
C/N Range		-40 to +60 dB
C/N Ratio Resolution		0.10 dB
C/N Ratio Accuracy		± 0.2 dB
C/I Range		-90 to +60 dB
C/I Ratio Resolution		0.10 dB
C/I Ratio Accuracy		± 0.5 dB
Carrier Bypass Minimum Insertion Loss		16dB
Carrier Bypass Level Control Accuracy (with output level < input level - 16dB)		± 3 dB

Internal Noise Source

AWGN Source		
Number		1 or 2
Bandwidth		
Band1		820-960 MHz
Band2	Filter Type 2:	1700-2000 MHz
	Filter Type 3:	1700-2200 MHz

Maximum Output Power Density	-98 dBm/Hz
Output Power Resolution	0.10 dB
Type	noise diode
Crest Factor	≥ 18 dB typical

Internal Interferers

Dual Frequency Synthesizer	
Type	prog., 2 independent tones
Frequency Range Tone 1	
Band1	800-1000 MHz
Band2	1700-2000 MHz
Frequency Range Tone 2	
Band1	800-1000 MHz
Band2	1700-2000 MHz
Frequency Offset from Carrier	programmable
Frequency Resolution	10 kHz
Max. Output Power	
Band1	-21 dBm
Band2	-24 dBm
Amplitude Resolution	0.10 dB

External Interferer Input

Frequency Range	
Band1	820-960 MHz
Band2	1700-2000 MHz
Filter Type 2:	1700-2200 MHz
Filter Type 3:	
Bandwidth	
Filter Type 1:	≤ 140 MHz
Filter Type 2:	≤ 300 MHz
Filter Type 3:	≤ 500 MHz
Amplitude Resolution	0.10 dB
Nominal Input Level	0 dBm

Max. Input Level	+10 dBm
Internal Power Meter	
Measurement Type	RMS power
Frequency range	
Band1	820-960 MHz
Band2	Filter Type 2: 1700-2000 MHz
	Filter Type 3: 1700-2200 MHz
Averaging	
Range	1 to 1024
Measurement span per average	400 milliseconds
Monitor Measurement Accuracy	± 0.5 dB
General	
Power Requirements	
Voltage	85-265 VAC (auto-sensing)
Frequency	47-63 Hz
Operating Environment	
Temperature	0 to 50° C (32 to 122° F)
Humidity	10% to 90%, non-condensing
Dimensions and Weight	
Height	6.9 inches
Width	17.7 inches
Depth	19.9 inches
Weight	40 pounds
Control Interfaces	
Remote Control Interfaces Provided	RS-232 (DCE) IEEE-488 (GPIB)