

Fully Specified, Low Cost, Desktop Distribution Amplifier

- Compact Desktop
- 1MHz–20MHz Bandwidth
- Comprehensive Specification
- Excellent Short Term Stability & Phase Noise



Approx actual size

Features

- Very Low Cost & Very Small Size
- 1MHz–20MHz Bandwidth
- Comprehensive Specification
- Excellent Short Term Stability & Phase Noise
- 6 outputs

Benefits

- +13dBm Output Level
- +6dBm to +12dBm
- High Stability
- Low Distortion
- High Isolation

Applications

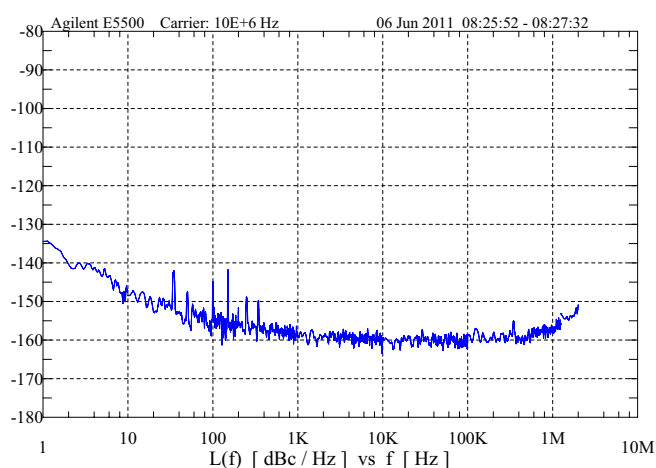
- Industrial Calibration Laboratories
- Telecoms
- Test Solutions
- RF Test Bench
- Production Test

Specifications

No of outputs	6	
No of inputs	1	
Input characteristics	Impedance 50 ohm nominal	
	Level +10dBm nominal +6 dBm to +12 dBm	
	Input SWR <1.2 :1 at 10 MHz	
Output characteristics	Impedance 50 ohm nominal	
	Rated output at 10MHz 12dBm into 50 ohms (@ +13dBm max, distortion will occur)	
	Output SWR <1.2:1	
	Maximum output 13dBm into 50 ohms at 10MHz typical	
Frequency response	1MHz to 20MHz +/-1.0dB	
Harmonics	(at rated output, 10MHz) (source harmonics less than -60dBc)	
	Second harmonic < -50dBc	
	Third harmonic < -50dBc	
Isolation	Output to output (adjacent outputs) >50dB at 10 MHz typically >60dB	
	Output to output (non adjacent) Ask Quartzlock	
	Output to input >90db at 10MHz	
Short term stability (at 10MHz)	2 x 10 ⁻¹³ tau=1sec 2 x 10 ⁻¹⁴ tau=10sec 5 x 10 ⁻¹⁵ tau=100sec	
Phase noise (10MHz)	Offset	Typical phase noise, dBc/Hz
	1Hz	-132
	10Hz	-145
	100Hz	-152
	1kHz	-158
	10kHz	-160
	100kHz	-160
Spurious outputs	< -100dBc	
Broadband noise	< -155 dBc/Hz	
Delay match between outputs	< 1ns	

Delay input to output	< 6ns
Supply	12V dc. E5-X6 is supplied with 85... 240V ac supply
Size	105 x 30 x 125mm

Phase Noise



Typical Output to Output Stability

Measured in 200Hz bandwidth

Tau	Allan Variance
1ms	5x10 ⁻¹¹
10ms	8x10 ⁻¹²
100ms	8x10 ⁻¹³
1s	2x10 ⁻¹³
5s	2x10 ⁻¹⁴
10s	1.5x10 ⁻¹⁴
100s	3x10 ⁻¹⁵
1,000s	1x10 ⁻¹⁵
10,000s	8x10 ⁻¹⁶

Output to Output Stability

Ask Quartzlock for plots. Typically x10⁻¹⁴/s