Quartzlock E5-X

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

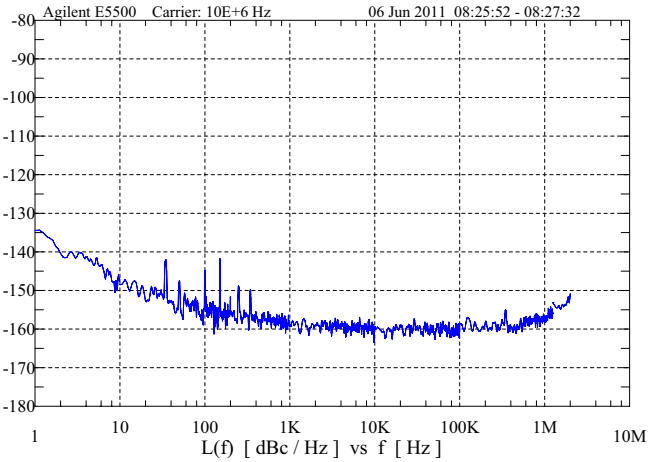
Tel **+44 (0)1444 232 967**

Email **sales@quartzlock.com**
www.quartzlock.com

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