

A Fully Specified, Low Cost Distribution Amplifier



Features

- Very Low Cost
- 1MHz - 20MHz Bandwidth
- **Comprehensive Specification**
- Excellent Short Term Stability & Phase Noise

Benefits:

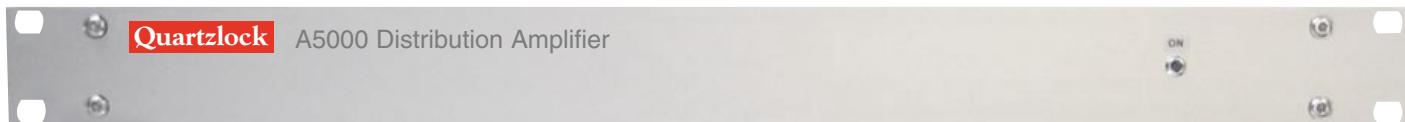
- +13dBm Output Level
- +7dBm to +15dBm
Adjustable Input Level
- High Stability
- Low Distortion
- High Isolation

Applications:

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

Quartzlock A5000

A Fully Specified, Low Cost Distribution Amplifier



SPECIFICATION

No of outputs: A5000	6 or 12
No of inputs:	1
Input characteristics	
a) impedance	50 ohm nominal
b) level	+10dBm nominal +7 dBm to +15 dBm adjustable
c) input SWR	<1.2 :1 at 10 MHz
Output characteristics	
a) impedance:	50 ohm nominal
b) rated output:	12dBm into 50 ohms at 10MHz
c) output SWR:	<1.2:1
d) 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	
a) output to output (adjacent outputs)	>50dB at 10 MHz typically >60dB
b) output to output (non adjacent)	Ask Quartzlock
c) 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	-115
10Hz	-145
100Hz	-146
1kHz & 10kHz	-147
Noise Floor	-155
Spurious outputs	< -100dBc
Broadband noise	< -155 dBc/Hz
Delay match between outputs	< 1 ns
Delay input to output	< 6ns
Supply	85 ... 240V ac
Option 1	Additional 6 outputs

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	x10 ⁻¹⁶

Ask Quartzlock for plots

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