

The LIA001 is a high dynamic range 'Line' or 'Cable' amplifier. The amplifier is designed to have a repeatable phase characteristic so that when used together, good phase match between multiple LIA001's is maintained. This is critical when multi element phased array antennas use Amplifiers for reducing loss over a long coaxial cable run. Before the antenna 'beam former'.

Specification:

Parameter (Masthead)

Limits

Electrical:

Frequency Range	2 – 30MHz
Gain Ave.	10dB +/- 0.5dB
Gain Variation	+/-0.5dB.
Noise Figure (with Filter)	Typ 3dB, Max 4.5dB
TOIP	>+35dBm
Second order	>+70dBm
Reverse Isolation	>13dB
Input return loss	>14dB. (VSWR better than 1.5:1)
Output Return Loss	>14dB. (VSWR better than 1.5:1)
Phase Match between LIA001's	+/- 0.5°
Gain Match	+/- 0.5dB
Input Impedance	50Ω
Output Impedance	50Ω
Connectors.	BNC type Female
Voltage	15 – 24V.
Current	100mA Typ.
Lightning Protection	2kV 1.6nS rise time, 50nS duration.
Health Monitoring	Internal monitoring and LED Alarm
NB: Optional Bypass	

Mechanical:

Case Size. (Masthead)	132 x 76 x 23mm (Excluding Connectors)
Weight:	0.5kg
Material	Aluminium Main housing with aluminium cover

Environmental:

Temperature:	0 to +50°C
Weatherproofing	Indoor use only.

Typical Plots

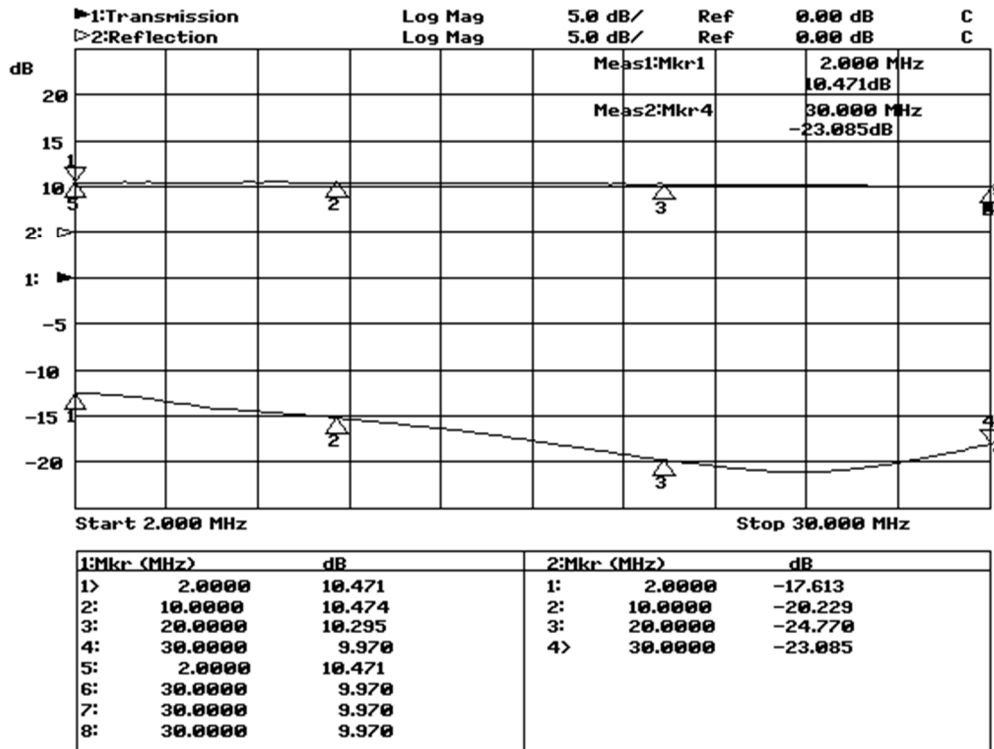


Figure 1 Gain and Input Return Loss

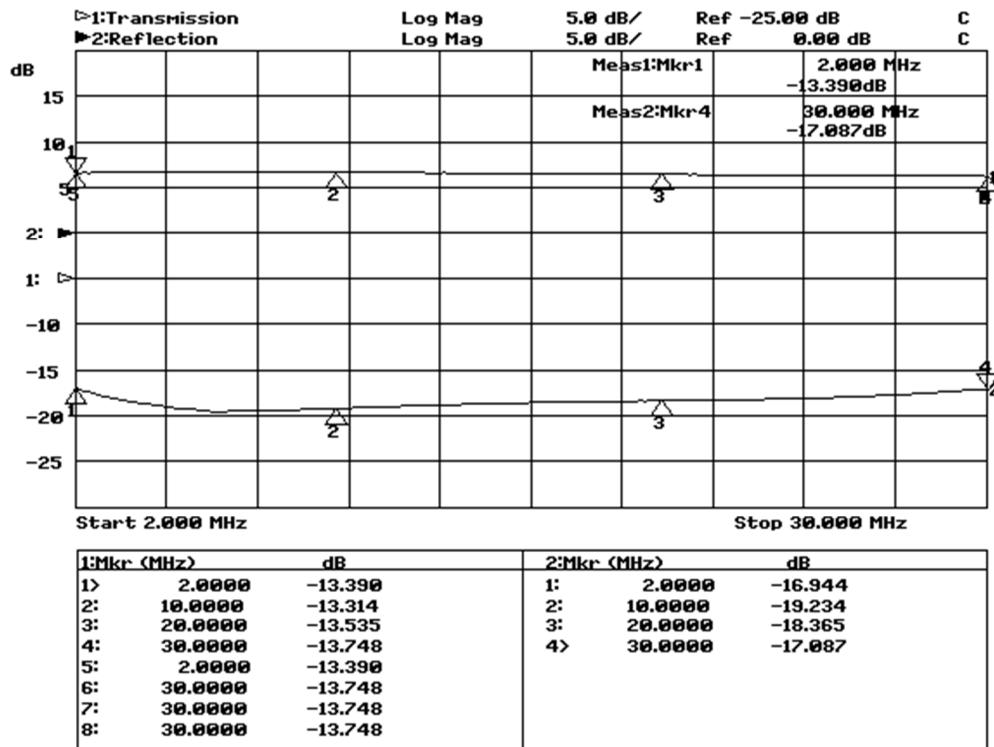


Figure 2. Reverse Isolation and Output return loss

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 9 Schooner Circuit, Manly West, QLD 4179, Australia
 Tele: +61 (0)7 3393 4163 Email: Sales@stancomm.com.au
 ABN 25 085 781 39