

MHA004 – Low Noise Mast Head Amplifier 118-500MHz



The MHA004 is used to improve received system performance across the band 118MHz-500MHz. By using a Masthead amplifier overall system noise figure is improved. The MHA is powered through the coax cable by Stancoms Smart Bias Tee, SBT003/4A. An integrated filter provides rejection of 40dB from DC-108MHz. reducing the problem of overload and intermodulation in the following receiver.

Specification:

Parameter (Masthead)

Limits

Electrical:

Frequency Range	118MHz – 500MHz
Gain ave.	Nom. 20dB (Across the band)
Gain Variation	+/-2dB.
Noise Figure (with Filter)	Typ 1.5dB , Max 2.0dB
TOIP	>+25dBm
Input return loss	typ. >10dB. Max. >8dB.
Output Return Loss	< -14dB
Input Impedance	50Ω
Output Impedance	50Ω
Connectors.	N type Female
Voltage	8 – 24V.
Current	100mA Typ.

NB: Optional Bypass

Mechanical:

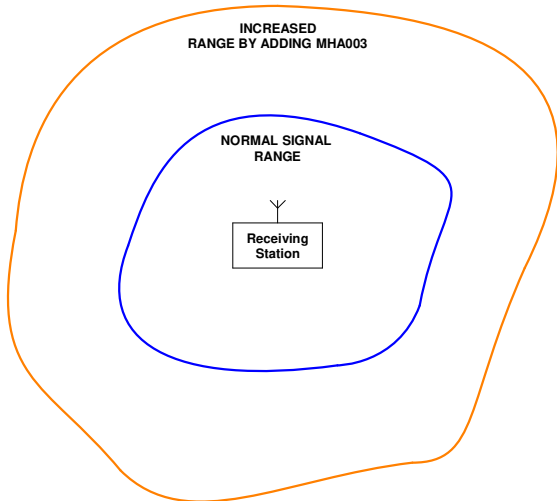
Case Size. (Masthead)	105 x 75 x 40mm (Excluding Connectors)
Weight:	0.5kg
Material	Aluminium Main housing with screen and polycarbonate cover.

Environmental:

Temperature:	-40 to +65 °C
Weatherproofing	Unit is waterproof to IP65.

Includes MHA mounting kit for 50-150mm Pole

INCREASE YOUR SIGNAL DETECTION RANGE:



The MHA004 is designed to be used where maximum system sensitivity is required at a receiving station. Normally receivers in the VHF/UHF range have a 5-8dB noise figure. When connected to a coaxial cable with a long run (Loss 3-5dB) the cable loss adds directly to the system sensitivity degrading the system performance in some cases to 10dB. BY fitting a Mast Head Amplifier with Low Noise significant improvement can be made to the system reducing its noise to that of the Masthead Amplifier. Stancoms MHA can improve the system by 8dB or more meaning that you can now receive signals 2x further at the same Signal to Noise ration....

MHA003 response characteristic:

