

The MHA003 is used to improve received system performance across the band 118MHz-1300MHz. Integrated into the MHA is a very high reject filter which reject the VHF Broadcast band by >60dBc @108MHz reducing the problem of overload and intermodulation in the following receiver. The MHA is powered through the coax cable by Stancoms Smart Bias Tee, SBT003/4A.



Specification:

Parameter (Masthead)

Limits

Electrical:

Frequency Range	118MHz – 1300MHz.
Rejection dc – 108MHz	>60dBc.
Gain Nom.	20dB (Across the band)
Gain Variation	+/-2dB.
Noise Figure (with Filter)	Typ 1.5dB , Max 2.5dB
TOIP	>+25dBm
Input return loss type	< -10dB. Worst case -8dB.
Output Return Loss	< -14dB
Input Impedance	50 Ohms
Output Impedance	50 Ohms
Connectors.	N type Female. (BNC also Available)
Voltage	8 – 24V.
Current	130mA Typ.

Option -1, Low supply Voltage

5 – 15V (to complement the PSU004A)

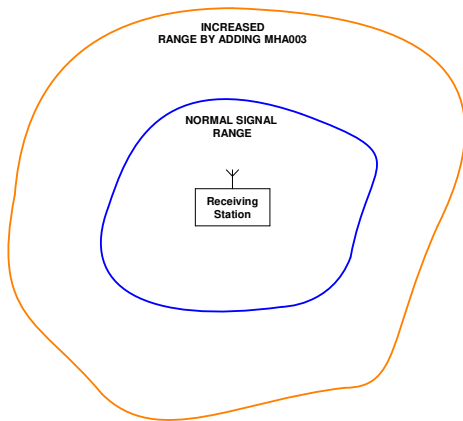
Mechanical:

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.

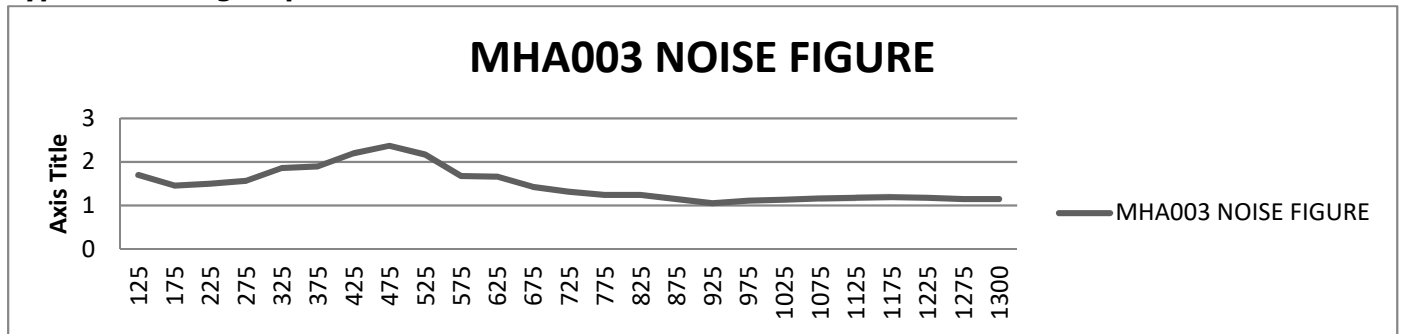
INCREASE YOUR SIGNAL DETECTION RANGE:



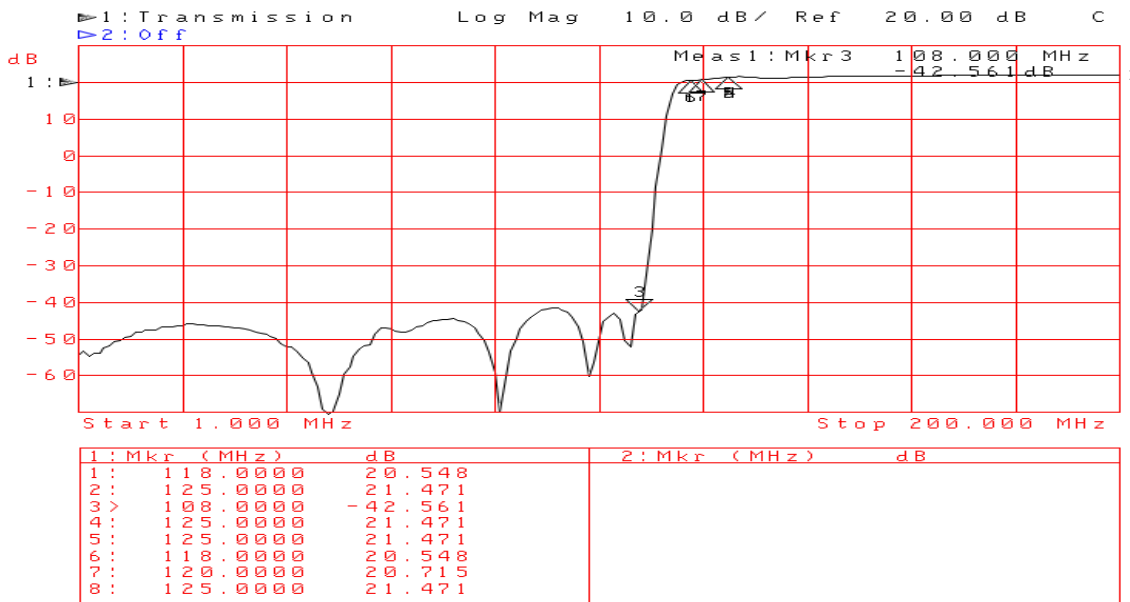
The MHA003 is designed to be used where maximum system sensitivity is required at a receiving station. Normally receivers in the VHF/UHF range have a 5-8dB noise figure. When connected to a coaxial cable with a long run (Loss 3-5dB) the cable loss adds directly to the system sensitivity degrading the 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 more than 2x the distance at the same Signal to Noise ratio....

Representative data

Typical Noise Figure plot:



MHA003 response characteristic:



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