



Tuneable Bandpass Filter

The EB001 electronically tuneable Band pass filter has been specifically designed to provide a cost effective means of accurately tuning a band pass filter over up to an octave bandwidth. Filter Control is achieved using 8 frequency control bits.

With low loss and flat group delay, the EB001 is an ideal choice for tuned super-heterodyne receivers containing analogue or digital signal data.

Designs are available up to 3GHz with user definable control interfaces.

Designed to withstand military environments, the EB001 is a complete filter solution for military communications and commercial users who wish to reject adjacent interfering signals in agile signal environments.

Please contact the sales team for further information.

FEATURES

- Full Comms. Bands Coverage
- Fast Tuning
- Electronically Tuneable
- Low Insertion Loss
- 8 Bit Digital Control 1MHz Resolution

APPLICATIONS

- Tactical Communications

See restrictions on published datasheets at www.teledynedefence.co.uk/

SPECIFICATIONS

Pass band	225 – 450 MHz note 1
3dB bandwidth	25 MHz Maximum note 1
Insertion Loss	3 ±0.75 dB max over all tuned centre frequencies across the entire tuning range
Group Delay Variation	< 10 nsec (Fo-2%) to (Fo+2%) where Fo = tuned frequency
2nd harmonic Rejection	60 dBc min note 2 & 3
1dB Compression (inband)	>+30 dBm note 2 & 3
T.O.I. (Inband)	>+40 dBm (input)
Tuning Control	8 bit parallel
Tuning Speed	35 microsecs
Input / Output Impedance	50 Ohm, standard SMA (f)
VSWR @ Fo	1.5:1
Operating Temperature Range	-30 to +85 degrees C
Storage Temperature Range	-50 to +85 degrees C
DC power	+5V DC at <500mA -12V to -40V DC at <1mA note 2
Size	75 x 30 x 20 mm

NOTES:

1. Other frequency options are available.
2. Specified performance with a -40V Bias. Option also available for -40V source to be generated internally.
3. The linearity of the filter is directly affected by the negative bias supplied to the unit. As standard, the unit has a P1dB (input) of +10dBm for -12V bias. Increasing the bias to -50V, the linearity and P1 will also increase to 30dBm (Input).