

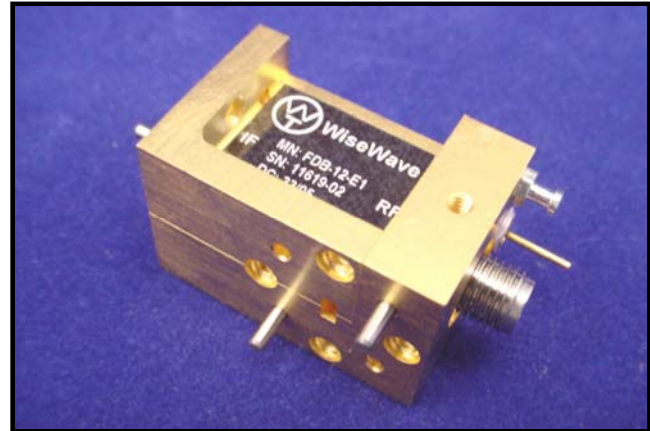
## Externally Biased Balanced Mixers

### FEATURES:

- ❖ Low conversion loss
- ❖ Low LO drive power
- ❖ Single external bias
- ❖ Full waveguide band operation
- ❖ Compact and rugged package

### APPLICATIONS:

- ❖ Test equipment
- ❖ Communication systems
- ❖ EW systems



**FDB-XX-E1 Series**

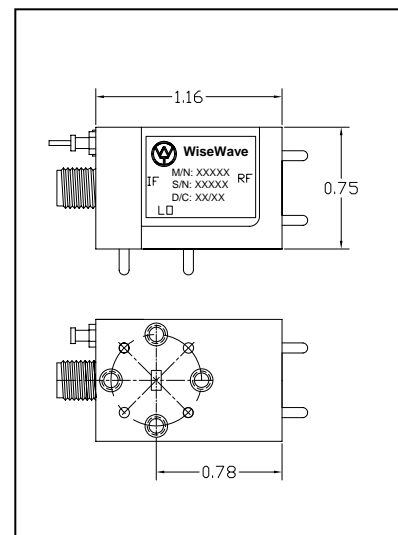
### DESCRIPTION:

It is always a concern at high millimeterwave band that there is not enough power to drive the mixer, especially full waveguide band. Model **FDB-XX-E1** series externally biased, balanced mixers is especially developed for this purpose. The mixers are offered in 4 waveguide bands to cover frequency spectra from 50 to 140 GHz. These mixers employ high performance GaAs Schottky beamlead diodes and balanced configuration to produce superior performance with a very low LO pumping level. The mixers are designed for full RF waveguide band operation with extremely wide IF bandwidth. Better performance can be obtained by operating the mixers in narrower bandwidth. These mixers are ideal candidates for test equipment, communication systems and EW receivers where frequency down conversion is required.

### SPECIFICATIONS:

Waveguide Band	V	E	W	F
Waveguide Size	WR-15	WR-12	WR-10	WR-8
Model Number	FDB-15-E1	FDB-12-E1	FDB-10-E1	FDB-08-E1
RF/LO Freq. Range (GHz)	50 to 75	60 to 90	75 to 110	90 to 140
IF Freq. Range (GHz)	DC-18	DC-18	DC-18	DC-18
LO Pumping Level (dBm)	0 to 3	0 to 3	0 to 3	0 to 3
Conversion Loss (dB, Typ)	11.0	12.0	13.0	15.0
LO/RF Isolation (dB, Typ)	20	20	20	20
External Bias (V/mA, Typ)	+5.0/1.0	+5.0/1.0	+5.0/1.0	+5.0/1.0
RF & LO Flange	UG385/U	UG387/U	UG387/U-M	UG387/U-M
IF Connector	SMA(F)	SMA(F)	SMA(F)	SMA(F)
DC Connector	Pin	Pin	Pin	Pin

### OUTLINE:



Note: Consult factory for the frequencies and performance other than listed.