

**Datasheet**
**Description**

Farran Technology offers a wide variety of balanced mixers. These are based on planar technology and GaAs Schottky barrier beam lead diodes. They feature low conversion loss, low noise figure, excellent noise suppression and LO-RF isolation. The LO drive requirement can be reduced by operating the mixers with bias. They are extremely rugged devices for small physical size and mass. Designs are chosen from a portfolio of mixer architectures depending on the customer's detailed requirements. IF frequency coverage to at least 18GHz is available and full RF/LO bandwidths may be provided in certain frequency bands.


**Features**

- Planar GaAs diodes
- Rugged compact design
- High reliability
- Low noise figure conversion loss
- Broad bandwidth
- Biased designs available

**Applications**

- Communications
- Radiometry
- Radar
- Laboratory Test Systems

Specification	Unit	Min	Typ	Max
RF Frequency Range	GHz	40		60
Conversion Loss	dB		6	
Noise Figure DSB	dB			5.5

**Notes:**

1. The Conversion loss values are for IF bandwidth DC to 4 GHz. The BMC spec are fixed for LO frequency and a 4GHz IF bandwidth.
2. Mixers are operational over the specified full band (performance will vary over full band). Please consult factory with exact LO, RF and IF range for expected mixer performance.
3. RF/LO/IF VSWR typically <2.5:1.
4. BMC-XXB model uses bias to allow LO drive levels 0 to +3dBm.
5. LO level +13dBm as standard
6. Consult factory with LO, RF and IF range for performance specifications
7. IF bandwidths up to 40GHz are available with fixed LO, for certain models consult factory
8. Models covering frequencies beyond 220GHz are available, consult factory
9. FTL recommends the use of a precision PSU (FDB-F4) for best practice

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protection of Schottky diodes in all mixers.

**Note:**

The data contained in this document describes new products in the pre-production phase of development, and is for information only. Farran Technology reserves the right to change, without notice, the characteristic data and other specifications applied to this product. The product may be subject to Irish export restrictions.