



Tunable Frequency Extension Units

Extend frequency ranges beyond their base frequencies

Mercury’s FXT frequency extension product family is designed for use with our microwave frequency tuners to extend tunable ranges beyond their base frequencies.

The FXT products are separate, stand-alone devices that can be added to existing systems or used independently, and users can mix and match the FXT products with a variety of Mercury tuners. Switching is provided internally to support selection of all frequency sources, such as antennas upstream from the FXT. This product family is comprised of four form factors to maximize flexibility with pairing in different environments.

Highlights

- Four form factors:
 - Rack mount
 - Compact
 - Outdoor
 - ATR, ½ long
- Pairs with Mercury downconverters and upconverters
- Two standard input ranges: 18–40 GHz and 26.5–50 GHz
- Auto sense and sync
- Available in single or dual-coherent versions

Featured Product FXTR



The FXTR rack mount frequency tuner comes in an upconverter, downconverter and up/downconverter models in both single and dual channels.

10+

mix-and-match easy pairing options

18

GHz of extended frequency

8

tuner range options

100+

frequency extension combinations

TUNABLE FREQUENCY EXTENSION UNITS

Extend frequency ranges beyond their base frequencies



FORM FACTOR SPECIFICATIONS

| | FXTX Compact | FXTR Rack mount | FXTC Outdoor | FXTA Ruggedized |
|-----------------------------|--------------------------|---------------------------------|-----------------------------------|---|
| Power Supply | DC, 10-15 V | A/C, 90-240 V | DC, 10-15 V | A/C, 90-240 V |
| Power Dissipation | 10 W typ per channel | 15 W typ per channel | 15 W typ per channel | 15 W typ per channel |
| Power Connector | LEMO, two conductor | A/C | Circular Mil Type (MS3112E8-4P) | D38999/20FC-4PA |
| AUX Connector | LEMO, eight conductor | DB-9 | Circular Mil Type (MS3112E14-18P) | D38999/20FC35PN |
| Size | 10" x 7" x 1.5" | Rack mount, 1U and 2U available | 10" x 7.8" x 3.1" | ½ ATR, long |
| Operating Temp Range | -30° C to +55° C, case | 0° C to +50° C, ambient | -30° C to +55° C, case | -30° C to +55° C, ambient |
| Humidity | Up to 95% non-condensing | Up to 95% non-condensing | Up to 100% non-condensing | Up to 95% non-condensing |
| Storage Temp | n/s | n/s | n/s | -54° C to +71° C per MIL-STD-810E, Method 501.4 & 502.4, Procedure I |
| Shock | n/s | n/s | n/s | Per MIL-STD-810E, Method 516.4, Procedure 1, functional test profile for flight equipment, with peak shock level of 20 G's. |
| Vibration | n/s | n/s | n/s | MIL-STD-810E Method 514.4, Categories 1, 2, 6, and 8 |
| EMI | n/s | n/s | n/s | Designed to MIL-STD-461F, surface ship limits, below decks. Tested to CE102 |

FREQUENCY EXTENSION NAMING AND ORDERING

| F | X | T | — | X | X | - | X |
|-----------------|-------------------|---|-----------------------|---|-------------------------|---|---|
| Type | Conversion | | Max. Freq Value | | Configuration | | |
| FXT— | 5 - Up/down conv. | | 5 - up to 50 GHz | | C - Dual channel | | |
| X - Compact | 4 - Upconverter | | 4 - up to 40 GHz | | Null - Single converter | | |
| R - Rack mount | 3 - Downconverter | | 2 - up to 26.5 GHz | | | | |
| A - ATR, ½ long | | | 0 - low band, 100 MHz | | | | |
| C - Outdoor | | | | | | | |



Corporate Headquarters

50 Minuteman Road
Andover, MA 01810 USA
+1 978.967.1401 tel
+1 866.627.6951 tel
+1 978.256.3599 fax

International Headquarters

Mercury International
Avenue Eugène-Lance, 38
PO Box 584
CH-1212 Grand-Lancy 1
Geneva, Switzerland
+41 22 884 51 00 tel

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Visit: mrcy.com/ftx



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