## TRIO mXTEND<sup>TM</sup> (FR01-S4-210)

GSM, UMTS, LTE (698 – 960MHz and 1710 – 2690MHz)

Fractus Antennas specializes in enabling effective mobile communications. Using Fractus Antennas technology, we design and manufacture optimized antennas to make your wireless devices more competitive. Our mission is to help our clients develop innovative products and accelerate their time to market through our expertise in antenna design, testing and manufacturing.

The configuration illustrated herein for the TRIO mXTEND™ chip antenna component has been specifically designed for providing multiband performance in wireless devices (in particular in mobile devices), enabling worldwide coverage by allowing operation in the communication standards GSM850, GSM900, GSM1800/DCS, GSM1900/PCS, UMTS, LTE700, LTE800, LTE850, LTE900, LTE1700, LTE1800, LTE1900, LTE2000, LTE2100, LTE2300, LTE2500 and LTE2600. The TRIO mXTEND™ chip antenna component is built on glass epoxy substrate.

Bands: LTE 1-10, LTE 12-20, LTE 23, LTE 25-30, LTE 33-41, LTE 44.

#### **Product Benefits**

- Small size
- Cost-effective
- High efficiency
- Easy to use (pick and place)
- Multiband behavior (worldwide standards compatible)
- Off-the-Shelf
- Standard Product (no customization is required)

**30.0 mm x 3.0 mm x 1.0 mm** (image larger than real size)



PAT. US 62/529032

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### **Evaluation Boards**

| Class  | Frequency range                 | Technology      | Part Number      | Page |
|--------|---------------------------------|-----------------|------------------|------|
| 1 Port | 698 – 960 MHz & 1710 – 2690 MHz | With UFL cables | EB_FR01-S4-210-M | 2    |

### 1 port solution – 2 frequency regions

| Technical features     | 698 – 960 MHz             | 1710 – 2690 MHz |  |
|------------------------|---------------------------|-----------------|--|
| Average Efficiency     | > 55 %                    | > 65 %          |  |
| Peak Gain              | 1.1 dBi                   | 2.4 dBi         |  |
| VSWR                   | < 3:1                     |                 |  |
| Radiation Pattern      | Omnidirectional           |                 |  |
| Polarization           | Linear                    |                 |  |
| Weight (approx.)       | 0.25 g.                   |                 |  |
| Temperature            | -40 to + 85 °C            |                 |  |
| Impedance              | $50~\Omega$               |                 |  |
| Dimensions (L x W x H) | 30.0 mm x 3.0 mm x 1.0 mm |                 |  |

Technical features. Measures from the evaluation board with UFL cable (142 mm x 60 mm x 1 mm).

See pictures of the evaluation boards, matching network configuration and graphs of the specs in the <u>User Manual</u>.

For additional information, please visit <a href="www.fractusantennas.com">www.fractusantennas.com</a> or contact <a href="mailto:info@fractusantennas.com">info@fractusantennas.com</a>.