

- Optical to RF convertor (Satellite and FM,DAB,DTT )
- Quad and Quatro versions available
- Automatic Gain Control (AGC)
- Powered by STB or PSU
- Terrestrial signals overlaid onto each output (Quad only)
- Frequency Morphing Technology (FMT) for Worldwide use



The FibreIRS GTU converts optical power to RF power (4 satellite bands and FM,DAB,DTT ). All units have built in AGC which allows a wide dynamic range of optical powers without affecting output power and quality. Two LED indicators allow the user to monitor the status of the unit.

Two versions available —

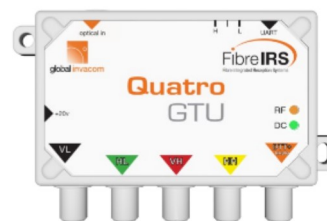
**Quad** for use directly with a STB/faceplate.

**Quatro** for use with a multiswitch as it has dedicated outputs for each of the satellite bands (Vertical Low, Horizontal Low, Vertical High, Horizontal High) and terrestrial.

Both versions can be powered via the satellite outputs and used with either the Optical LNB or the ODU32.



Quad version



Quatro version

## Technical Specifications

### Product Part No.

|            |         |
|------------|---------|
| Quad GTU   | D000187 |
| Quatro GTU | D000188 |

### Satellite (Electrical)

| Parameter                     | Min      | Max  | Notes               |
|-------------------------------|----------|------|---------------------|
| RF frequency range (MHz)      | 950      | 2150 |                     |
| Output impedance              | 75Ω      |      |                     |
| Return loss                   | 10dB     |      |                     |
| Gain variation across band    |          | 5dB  |                     |
| Nominal output level (Quad)   | 75dBμV * |      | For 30 transponders |
| Nominal output level (Quatro) | 79dBμV * |      | For 30 transponders |
| Terrestrial rejection         | 35dB     |      |                     |

\* additional variation can occur due to satellite transmitted signal levels.

## Fibre Integrated Reception System

### DTT, DAB & FM (Electrical)

| Parameter                                 | Min                      | Max | Notes             |
|---|--------------------------|-----|-------------------|
| RF frequency range                        |                          |     |                   |
| DTT                                       | 470-790MHz               |     |                   |
| DAB                                       | 174-240MHz               |     |                   |
| FM  | 88-108MHz                |     |                   |
| Nominal impedance                         | 75Ω                      |     |                   |
| Return loss                               | 10dB                     |     |                   |
| Nominal DTT output Quad ( <b>Quatro</b> ) | 71dBμV ( <b>78dBμV</b> ) |     | For 6 multiplexes |
| Gain variation across band                |                          | 5dB |                   |
| 950-2150MHz rejection                     | 35dB                     |     |                   |

### FM,DAB,DTT & Satellite (Optical)

|                               |                     |       |   |
|-------------------------------|---------------------|-------|---|
| Optical wavelength            | 1100nm to 1650nm    |       |   |
| Optical input power (typical) | -12dBm <sup>#</sup> | -3dBm | <sup>#</sup> For systems with 19.2dB optical budget |

### Control signals (Quad only)

|                           |              |       |             |
|---------------------------|--------------|-------|-------------|
| Vertical select voltage   | 10.5V        | 14.5V | 13V nominal |
| Horizontal select voltage | 15.5V        | 19V   | 18V nominal |
| Low / High band           | 0/22KHz tone |       |             |

### DC specification

|                                  |              |   |
|----------------------------------|--------------|---|
| Input voltage range              | 10.5V to 21V | For both direct or line powering            |
| Current consumption (Quad)       | 235mA max    | @ 10.5V for RX1 and Rx2 only (line powered) |
| Current consumption (Quad)       | 235mA max    | @ 10.5V for RX3 and Rx4 only (line powered) |
| Total Current consumption (Quad) | 470mA max    | @ 10.5V (direct power)                      |
| Current consumption (Quatro)     | 490mA max    | @ 10.5V                                     |

### Connectors

|               |            |
|---------------|------------|
| Quad output   | F x 4      |
| Quatro output | F x 5      |
| Power supply  | 2.1mm Jack |
| Optical input | FC/PC      |

### Environmental Specification

|                       |                |
|-----------------------|----------------|
| Operating temperature | -15°C to +50°C |
| Storage temperature   | -20°C to +70°C |

### Optical cabling

|            |                     |
|------------|---------------------|
| Fibre type | Single mode         |
| Standard   | GI - approved G657a |

### Dimensions

|                  |   |
|------------------|---|
| Size (W x H x D) | 128.7mm x 116.5mm x 27mm (Quad)<br>120.8mm x 80.1mm x 26.3mm (Quatro) |
| Weight           | 325g (Quad) 175g (Quatro)   |

### Software (GUI) for Frequency Morphing

|                             |                            |
|-----------------------------|----------------------------|
| Supported operating systems | WinXP, Win7, Linux, Mac OS |
| Interface                   | UART                       |

**Global Invacom will only support systems that are installed using**

**FibreIRS™ approved fibre cabling & system components**

Note: Specifications subject to change without notice