

# UP-THE-FIBER 4250 SM

Miniature digital video transmitter, data, CC

## DESCRIPTION

Siqura's Up-the-Fiber™ (UTF) digital line of equipment provides high-quality, 9-bit digitized video transmission with bidirectional data at the highest quality/price ratio. The module also offers an isolated alarm contact closure channel to transport, e.g, anti-tamper or door contact, from the camera to the central site. UTF 4250 SM systems work with one single-mode optical fiber.

## FEATURES

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9-bit video with 63 dBw SNR

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PTZ data channel

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EasyC-s for unique time-saving PTZ connection and configuration

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Compact transmitter (45x45x25 mm)

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Dual receivers for high-density receiver nodes

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Alarm contact (CC)



## Description

Up-the-Fiber™ 4200 series receivers can handle one or two video, data, and CC channels. The UTF module supports EasyC–s. With EasyC–s, a group of receivers uses only one external data connection, simplifying system implementation and maintenance. The data port only needs to be configured on the receiver; the transmitter automatically follows.

The bidirectional RS-485/422 data interface supports PTZ data from all types of camera interfaces including RS-485, TTY, Manchester, Bi-phase, and SensorNet. UTF receivers are also available as stand-alone units (/SA).

Their wide operating temperature range makes the compact, stand-alone transmitters suitable for use in outdoor camera housings and camera connection boxes. All miniature standalone models can be powered by the camera power supply (12 Vdc or 24 Vac). A PSR-12DC is recommended in case of extreme environmental conditions.

| Video                 |                                 |
|-----------------------|---------------------------------|
| Number of channels    | 1                               |
| Video format          | NTSC, PAL, SECAM                |
| Input/output level    | 1 V <sub>pp</sub> (3 dB)        |
| Bandwidth (-3 dB)     | 6 MHz                           |
| Sampling resolution   | 9-bit effective                 |
| Group delay           | less than 20 ns                 |
| Differential phase    | Max 1.0°                        |
| Differential gain     | Max 2.0%                        |
| Signal-to-noise ratio | 63 dBw                          |
| Connector type        | 75 BNC (gold-plated center pin) |

| Data               |   |
|--------------------|---|
| Number of channels | 1 (full duplex)   |
| Data interfaces    | RS-422/485 (2- or 4-wire)                                   |
| Interface support  | Current loop, TTL, TTY, Manchester, Bi-phase                |
| Data format        | Asynchronous, serial  |
| Data rate          | DC to 230 kb/s  |
| Connector type     | 6-pin terminal  |
| EasyC-s            | Backplane data bus wiring and single-point configuring (RX) |

| Contact closures   |                                    |
|--------------------|------------------------------------|
| Number of channels | 1                                  |
| Input (TX)         | +3.3 V pull-up, 2.2 k              |
| Threshold          | 1.4 V                              |
| Output (RX)        | Fail-safe, isolated; 100 mA / 50 V |

| LED status indicators |   |
|-----------------------|---|
| TX models             |   |
| - Power               | on (green), local synchronization error (red),<br>remote synchronization error (yellow)               |
| RX models             |   |
| - NV                  | no video on output (red)  |
| - Sync                | operational link (green), local synchronization error (red),<br>remote synchronization error (yellow) |

| Environmental                     |  |
|-----------------------------------|--|
| Operating temperature             | -40 °C to +74 °C (-40 °F to +165 °F)   |
| Storage temperature               | -55 °C to +85 °C (-67 °F to +185 °F)   |
| Relative humidity                 | 95% with no condensation   |
| MTBF (mean time between failures) | 250,000 hours  |
| Safety and EMC                    | IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4,<br>EN 50081-1, EN 55022, FCC part 15 |

| Powering |  |
|----------|--|
|----------|--|

## Specs

### Powering

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Power consumption                  | 3 W                                   |
| Rack-mount units                   | MC 10 and MC 11 power supply cabinets |
| Stand-alone units (/SA)            | 12 Vdc                                |
| Miniature stand-alone transmitters | 11 to 40 Vdc or 20 to 30 Vac          |

### Mechanical

|                          |                                      |
|--------------------------|--------------------------------------|
| UTF 4250 TX-MSA          |                                      |
| - Dimensions (h x w x d) | 45 x 45 x 25 mm (1.8 x 1.8 x 1.0 in) |
| - Weight                 | 250 g (8.8 oz)                       |
| UTF 4250 RX-2            |                                      |
| - Dimensions (h x w x d) | 128 x 35 x 190 mm (5 x 1.4 x 7.5 in) |
| - Weight                 | 450 g (15.9 oz)                      |

### Optical (TX / RX)

|                    |                   |
|--------------------|-------------------|
| Fiber type         | 1x SM (9 $\mu$ m) |
| Output wavelength  | 1310 nm / 1550 nm |
| System link budget | 19 dB / 19 dB     |
| Link length        | 40 km             |
| Minimum link loss  | 0 dB              |
| Output power       | -15 dBm / -15 dBm |
| Input sensitivity  | -34 dBm / -34 dBm |
| Connector type     | SC                |

### Ordering information

|                   |  |
|-------------------|--|
| UTF 4250 TX-MSA   | Miniature digital video transmitter with CC and 2-way data               |
| UTF 4250 RX-2     | Dual digital video receiver with CC and 2-way data                       |
| UTF 4250 RX-2 /SA | Dual digital video receiver with CC and 2-way data. Stand-alone version. |

