

GI FibreMDU

Twin and Quad Optical Converters



global invacom
completing the picture

- Converts optical signals from a GI FibreMDU Optical LNB to IF
- Provides up to 2/4 Universal Satellite feeds from 1 Fibre Optic connection
- Plug and Play
- Powered via the STB

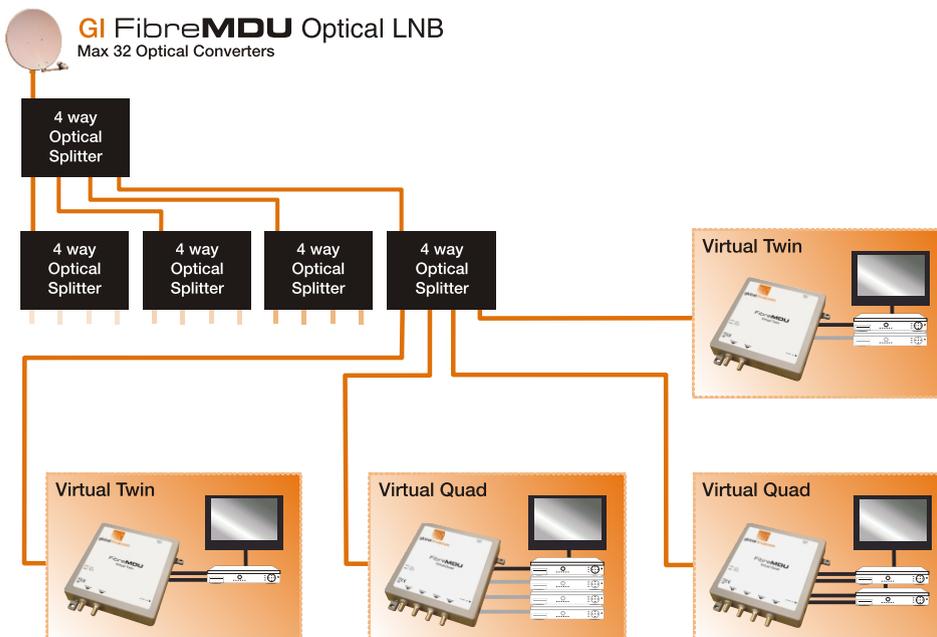


The GI FibreMDU converters have been developed for use in conjunction with the GI Optical Output LNB either via a Passive Optical Network (PON) or direct connection to the GI Optical Output LNB, with attenuation.

Each of the GI FibreMDU converters have been developed to replicate a specific type of LNB, Twin, Quad or Quattro providing signal output to the satellite receiver in exactly the same way as if it were connected directly to a standard universal LNB, negating any need for costly software development for either the broadcaster or the receiver manufacturer.

Each of the GI FibreMDU Converters receives the optically modulated frequency stacked signals from the GI Optical Output LNB or PON typically via a 3mm fibre optic cable (GI 3.0 Steel Armoured Fibre) utilising the FC/PC connector.

The optical signals are then converted back to their original IF format and output to the receiver via standard F connections making in home installations simple and trouble free. Both the Twin & Quad GI FibreMDU Converters are receiver powered enabling them to be located almost anywhere in the home.



Specifications

Input Parameters

| Parameter | MIN | MAX |
|--|----------------|---------|
| RF Frequency Range | 950 - 5450 MHz | |
| Optical RLR | 20 dB | |
| Optical Power | | |
| SML PON Setting | -13 dBm | 0 dBm |
| STD PON Setting | -18 dBm | -14 dBm |
| Aggregate Equivalent RF Power | -60 dBm | -20 dBm |
| Nominal SAT Transponder Levels | -80 dBm | -40 dBm |
| <small>Max. level corresponds to min. optical loss. Min level corresponds to max. optical loss. Figures are for typical transponder and exclude LNB ripple and incoming transponder to transponder level differences</small> | | |
| SAT Transponders | 120 | |

Legacy Output Parameters

| Parameter | MIN | MAX |
|--|-----------------|---------|
| RF Frequency Range | 1100 - 2150 MHz | |
| Horizontal High Band | 1100 - 2150 MHz | |
| Vertical High Band | 950 - 1950 MHz | |
| Horizontal Low Band | 950 - 1950 MHz | |
| Vertical Low Band | 950 - 1950 MHz | |
| Nominal Impedance | 75 Ohm | |
| Return Loss | 10 dB | |
| Gain Ripple Across Band | | 4 dB |
| Gain Ripple Across 30 MHz | | 1 dB |
| Nominal Output Level (per transponder) | -65 dBm | -25 dBm |
| Noise Fig. @ Max. Gain | | 65 dB |
| OIP3 | +10 dBm | |
| Isolation (Unwanted path to select path) | 30 dB | |
| In Band Spurious Power | -25 dBm | |
| Out of Band Spurious Power | | -60 dBm |
| LO Power | | -60 dBm |
| Integrated Phase Noise | | 4° RMS |
| <small>Integrated from 1kHz to 13MHz or Astra LNB specification based on spot frequencies</small> | | |
| Power Consumption (mA at 12V) | <300 mA | |
| <small>Twin and Quad Versions to be supplied from STB. Hence requires immunity to the 13 - 21V tone and volts signaling. Quatro version to be powered by separate PSU.</small> | | |

Switching V/T on Satellite Receiver Ports

| Pol/Band | Specification |
|-----------------------|----------------|
| HH | >15.5V, 22 kHz |
| HL | >15.5V |
| VH | >13.5V, 22 kHz |
| VL | >13.5V |
| 22kHz Tone Frequency | 22 ± 4 kHz |
| 22kHz Tone Duty Cycle | 50 ± 20% |
| 22kHz Tone Amplitude | 700 ± 300mV pp |

Environmental

| Temperature | |
|-------------|-------------|
| Operating | 0 to 50°C |
| Storage | -10 to 50°C |

EMC Conformance to EEC Standard : EN50083-2

Safety Conformance to EEC Directive : 73/23/EEC
Conformance to RoHS EEC Directive

GI FibreMDU

Quatro Optical Converter

- Converts optical signals from a Fibre Optic LNB to IF
- Supplies 4 fixed output Satellite feeds from 1 Fibre Optic connection
- Plug and Play
- PSU included

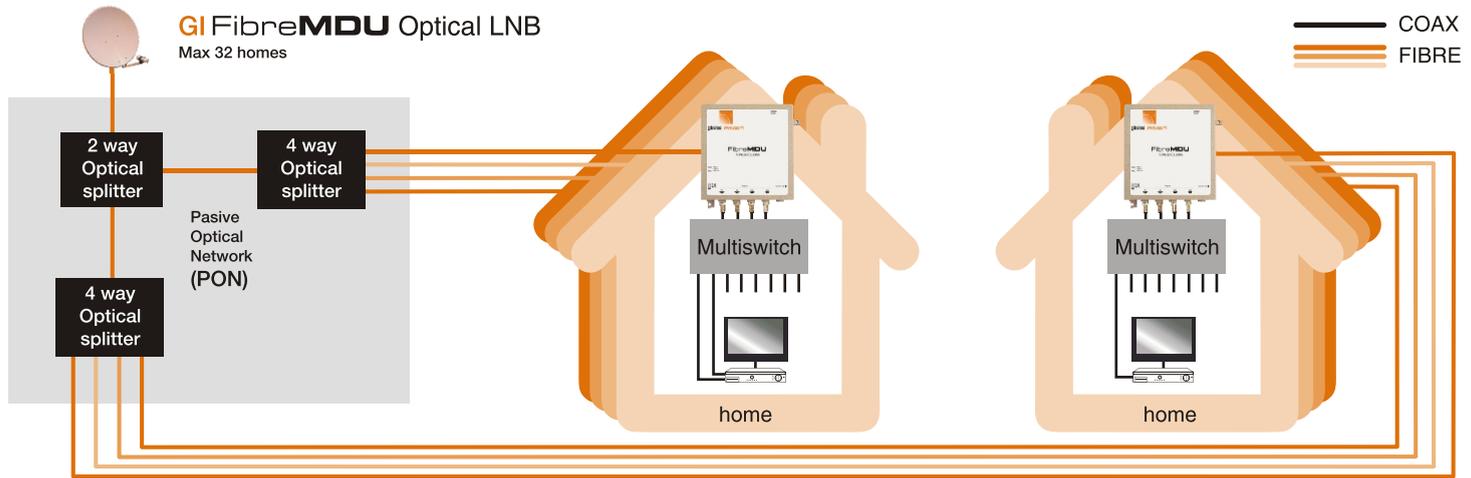


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Each of the GI FibreMDU converters have been developed to replicate a specific type of LNB, Twin, Quad or Quatro providing signal output to the satellite receiver in exactly the same way as if it were connected directly to a standard universal LNB negating any need for costly software development for either the broadcaster or the receiver manufacturer, all receiver configurations remain the same.

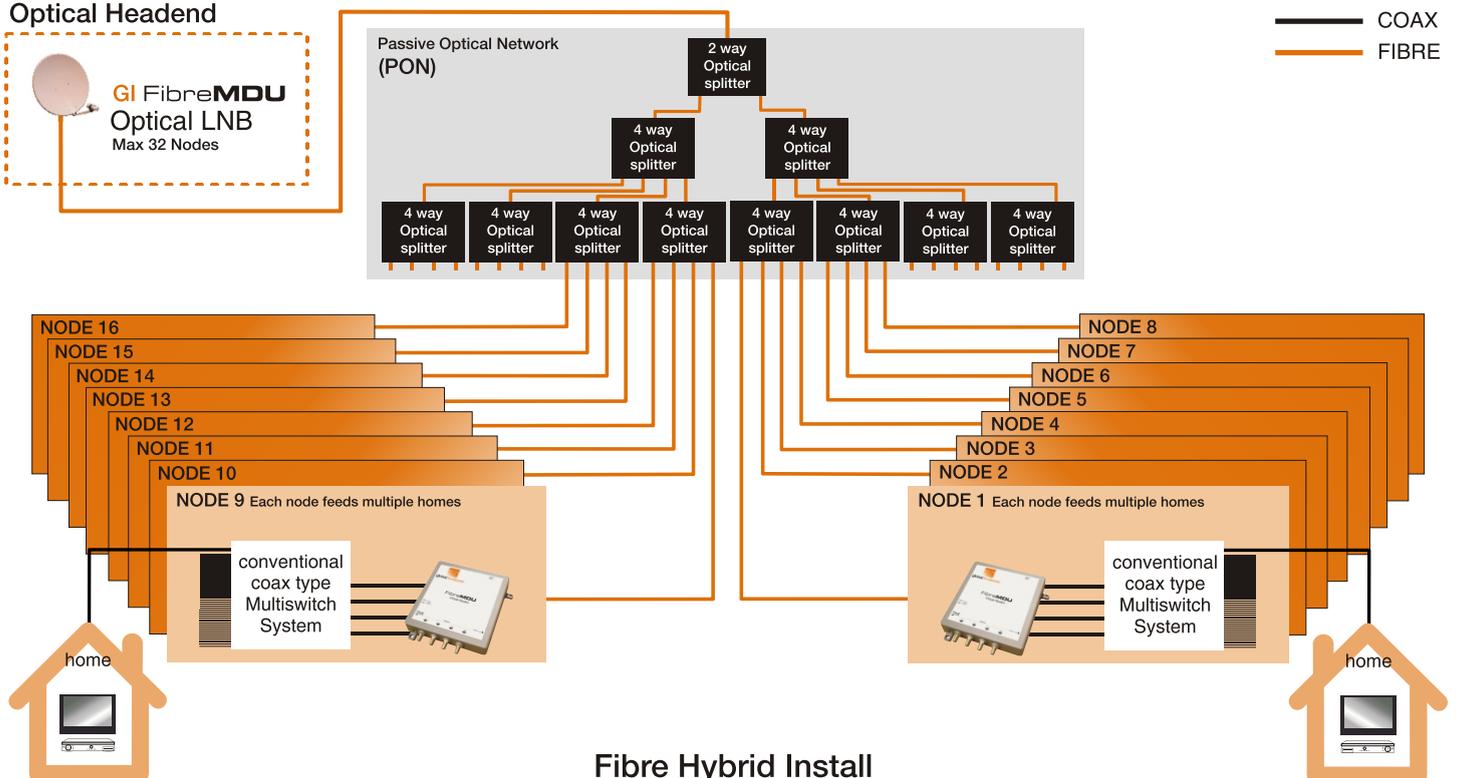
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Unlike the Twin & Quad Converters the Quatro Outputs the IF signals on 4 fixed polarities making direct connection to Multiswitch systems simple providing the installer with the ability to create almost any size hybrid network.



Fibre to the Home

Optical Headend



Fibre Hybrid Install