

RF Unit/Full-Indoor for Digital MW Radio Systems Ultra High Power 4 to 11GHz Frequency Range



> RFU - In 1+1 configuration

Main Features

- High linearity allows high order modulation scheme
- Ultra High Output Power
- Low current consumption
- Very low Phase Noise
- Superior reliability- High MTBF
- Fully calibrated over the temperature range

Options

- Custom Branchings for 1+1 HSB and FD
- SW selectable BW
- Customer specific IDU Interface
- Customized IF Frequency/Telemetry interface

The RFU – FI™ Full Indoor RF Unit provides a flexible and cost effective OEM solution to System Integrators for SDH radio systems; operating from 4 to 11 GHz, the RFU – FI™ family is your solution for fast time to market, highest performances and reliability.

RFU – FI™ is a SW configurable RF Unit for Full Indoor system available in 1+0 and 1+1 Space and Polarization Diversity. Custom solutions for 1+1 Hot Stand-by and Frequency diversity are available on application.

The advanced features and enhanced capabilities of the RFU – FI™ make it the ideal solution for Radio Links from Super PDH to 2xSTM-1 and Gigabit Ethernet, from QPSK to 128 QAM and from 10 to 56 MHz channel BW.

Default

Option

STANDARD
28 MHz Ch BW

WIDE BAND
56 MHz Ch BW

Hardware Available configurations

Full Duplex

Half Duplex
TX or RX

TX Power
Ultra HI PW



FREQUENCY SPECIFIC PARAMETERS

| Frequency | Standard | Operating Frequency (GHz) | TX Output Power dBm | | | Noise Figure |
|-----------|----------|----------------------------------|---------------------|---------------|-------------|--------------|
| | | | QPSK | 16, 32, 64QAM | 128, 256QAM | |
| 4Ghz | ETSI/FCC | 4,40 to 5,00 | +40 | +37 | +35 | < 4,0 dB |
| 6Ghz | ETSI/FCC | 5,90 to 7.10 | +40 | +37 | +35 | <4 dB |
| 7Ghz | ETSI | 7,10 to 7,70 | | | | |
| 8Ghz | ETSI | 7,70 to 8,50 | +38 | +35 | +33 | <4,5 dB |
| 10/11Ghz | ETSI/FCC | 10,15 to 10,65 10,70 to 11,70 | | | | |

RFU-FI-PARAMETERS

| | | |
|---------------------------------|---|--------|
| TX IF interface | 350 MHz, -5 to -33dBm | |
| Rx IF Interface | 140 MHz, -12 +/-2 dB over the AGC Range | |
| Telemetry Interface | Customer specific | |
| Power control Range | >25 dB | |
| Power setting resolution | 0,5 dB | |
| Power setting accuracy | 2 dB | |
| Rx AGC Range | -20 to -90 dBm | |
| SSB tx/rx Phase Noise | 4 - 6 - 7 - 8 GHz | 11 GHz |
| dBc@10KHz | -82 | -80 |
| dBc@100KHz | -103 | -100 |
| dBc@1MHz | -123 | -120 |
| Synthesizer Step | 0,25 MHz | |
| Frequency Stability | 2,5 ppm | |
| Standard Compliance | Radio ESTI EN 302 217, EN 301 216, EN 301 128, EN 300 198 | |
| | Power Supply ETSI EN 300 132-2 | |
| | EMC / Safety ETSI EN 301 489 / IEC EN 60950 | |

MECHANICAL / ENVIRONMENTAL

| | | | | |
|-------------------------------|-----------------------------------|----------------|--------|--------|
| Dimensions | 19" Rack 6U 482 mm x266mm x 126mm | | | |
| Weight | 9,8 Kg | | | |
| Operatimng Temperature | -5 to +45° C | | | |
| Altitude | Up to 4500 meters | | | |
| Humidity | 0 to 95% non-condensing | | | |
| Power Input | -48V DC (-36V to -62V DC) | | | |
| Power Consumption | < 155 W | | | |
| Cooling | Natural convection | | | |
| IF/Telemetry Interface | N-type female | | | |
| Antenna Interface | 4GHz | 6GHz | 7/8GHz | 11GHZ |
| | UDR48/N-Type | UDR70 (CPR137) | UDR84 | UDR120 |
| Standards Compliance | ETSI ETS 300 019 | | | |