

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

Hardware Available configurations

STANDARD
28 MHz Ch BW

WIDE BAND
56 MHz Ch BW

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				
10/11Ghz	ETSI/FCC	10,15 to 10,65 10,70 to 11,70	+38	+35	+33	<4,5 dB

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			
Operating 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			