

# IPC100 Series Microwave Radio System

## Licensed RF Connectivity

### Studio to Transmitter / Studio to Studio

The **IPC100** is a low-cost point to point FDD/PDH digital microwave radio system for Ethernet E1 / T1 / DS3 payload.

The **IPC100** Series products support capacities up to 100 Mbps Ethernet, any part of which can be allocated to E1/T1 capacity up to 32xE1/T1 and DS3x2

The **IPC100** operates in frequency ranges from 7 to 38 GHz. It is available in Non-Protected (1+0) and protected (1+1) mode in HSB, MHSB, frequency diversity (FD), and space diversity (SD) configuration. The IPC100 is also configurable for Repeater Operation. It can be mounted directly on properly equipped antennas using a simple snap-on mount, or can be mounted separately and connected using standard UBR flange series waveguide.

The **IPC100** meets carrier-grade standards for performance, reliability, and quality.



**Outdoor Unit**



**Indoor Unit**

#### Features and Benefits:

- Licensed Frequency Band
- Point to Point Connectivity
- 4, 8, 16, 32 T1/E1 Interface
- 1 xE3 or 2xE3 (34 Mbps) Option
- Low Latency Ethernet up to 100 Mbps
- Field upgradeable by Plug-in Assembly
- RF, IF, Digital Loop back Capability
- Built-in BER Monitor
- Delay Setting for Hitless (errorless) switching
- Wide Operating Temperature Range
- Wide DC Power Input Range
- Low Power Consumption
- SNMP Management
- Up to 300 Meter separation between IDU (Indoor Unit) and ODU (Outdoor Unit)
- Small attractive profile



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<b>RADIO (ODU)</b>							
Frequency	7 GHz	8 GHz 1	11 GHz	13 GHz	15 GHz	18 GHz	23 GHz
Band (GHz)	7.1-7.9	7.72-8.5	10.7-11.7	12.7-12.3	14.5-15.4	17.7-19.7	22.0-23.6
T-R Space (MHz)	154/161/ 196/245	119/126/151/ 266/311.32/61 4	490/530	266	420/490 728	1010/1092.5	1008/1200 1232
T-T Space (MHz)	ETSI	7, 14, 28	7, 14, 28	7, 14, 28	7, 14, 28	7, 14, 28	7, 14, 28
	FCC	30	30	30	30	30	30
Xmit Power (dBm)QPSK	27	27	26	26	20	25.5	24
Xmit Power (dBm)16/32QAM	22.5	22.5	21.5	21.5	21.5	21.5	20.5
Xmit Pwr (dBm) 64/128QAM	16.5	16.5	15.5	15.5	15.5	15.5	14.5
Receiver Threshold 10-6 BER (dBm)	QPSK	-84	-84	-84	-84	-84	-84
	16/32QAM	-72	-72	-72	-72	-72	-72
	64/128QAM	-69/-65	-69/-65	-69/-65	-69/-65	-69/-65	-69/-65
Modulation	QCP SK, 16QAM, 32QAM, 64QAM, 128QAM - User Selectable						
Freq Stability	+/- 5ppm		Frequency Tolerance			+/- 10 ppm	
Max Input Pwr	+0 dBm						
IDU to ODU Cable	LMR-400 or Equivalent ( 50 Ohm RG8 Type )						
IDU to ODU Separation	300 Meter ( 1000 ft ) Single LMR-400 Coaxial Cable						
STD Compliance	ITU, ETSI, FCC						
<b>Multiplexer (IDU)</b>							
Capacity	16xE1/T1, E3	32 x E1/T1, 2xE3	32xE1/T1, 2xE3	STM-1			
Ethernet Data Rate	20 Mbps	50 Mbps	100Mbps	155 Mbps			
Number of Ethernet Ports	2	2	2	2			
Impedance	E1 = 75 Ohm std 120 Ohm optional T1 (DS1) 100 Ohm Balanced			Ethernet = 100 Ohm Balanced			
Line Code	E1 = HDB3		T1 (DS1) = AMI or B8ZS		Ethernet = 10 / 100 Base T		
Network Management	WEB, SNMP or Telnet						
Status Indicator	LED	Power, Local, Remote-East, Remote West, multiple Alarms & Status					
Alarms	2 Form C electrical interfaces, 2 TTL alarm outputs, 4 TTL alarm inputs						
<b>Power Supply</b>							
Input Voltage	40 – 60VDC, any polarity						
Power Consumption	<30 Watts IDU (1+1), <40W ODU (1+0)						
<b>Physical</b>							
Dimensions (inches)	ODU	10.5 (D) x 3.5 (H)			IDU	17.5(W) x9.4(D) x 1.75(H)	
Weight (lbs.)	ODU	10.7			IDU	7.5 (1+1)	
<b>Environmental</b>							
Operating Temperature	ODU	-33C to +55C			IDU	-5 C to +55 C	
Storage Temperature	ODU	ETS 300-019-2-1			IDU	-40 C to +70 C	
Humidity	ODU	100% condensing			IDU	95% non-condensing	
<b>Warranty</b>							
Standard	One (1) year from factory ship date						
<i>All specifications subject to change without notice</i>							