HIGH CAPACITY IP RADIO
SALINAS IP 70-2.6

The Salinas IP70-2.6 is an outdoor point-to-point radio system operating in the millimeter-wave 70 and 80GHz frequency bands with up to 2.6Gbps full duplex capacity.

The state-of-the-art radios incorporate direct modulation at 70GHz (Zero IF frequency) to eliminate the harmonic mixing spurs and the additional Phase Noise that would exist with multiple up and down conversion.

The radios feature configurable Forward Error Correction Modes (heavy and light) to allow a trade-off between capacity and sensitivity, as well as Adaptive Coding and Modulation for maximum throughput given available propagation conditions.

Configurable BERT (Bit Error Rate Test) mode operation can be implemented on part of the data stream without disabling the complete link.

In-band management channel allows web GUI management of far-side terminal.
The radios Include built-in surge protection for its Ethernet and power interfaces. Surge protection mechanism complies with surge immunity standard IEC 61000-4-5, level 4.

The radios are available with a choice of three high gain antennas of 0.2m, 0.3m and 0.6m diameter depending on link distance.

MAIN ADVANTAGES

- 2.6Gbps Full Duplex Gigabit Ethernet Radio oper- ating in millimeter-wave bands (70 & 80GHz).
- Outdoor Radio Unit.
- 1GE or 10GE Ethernet transport via SFP + user ports or 1GE Ethernet transport via RJ-45 user port.
- Configurable Modulation QPSK through 256QAM.
- Configurable Forward Error Correction Modes.
- Hitless Adaptive Coding and Modulation.
- Web GUI management.
- In-band management channel allows web GUI management of far-side terminal.
- External BNC connector provides antenna alignment analog signal strength indicator.

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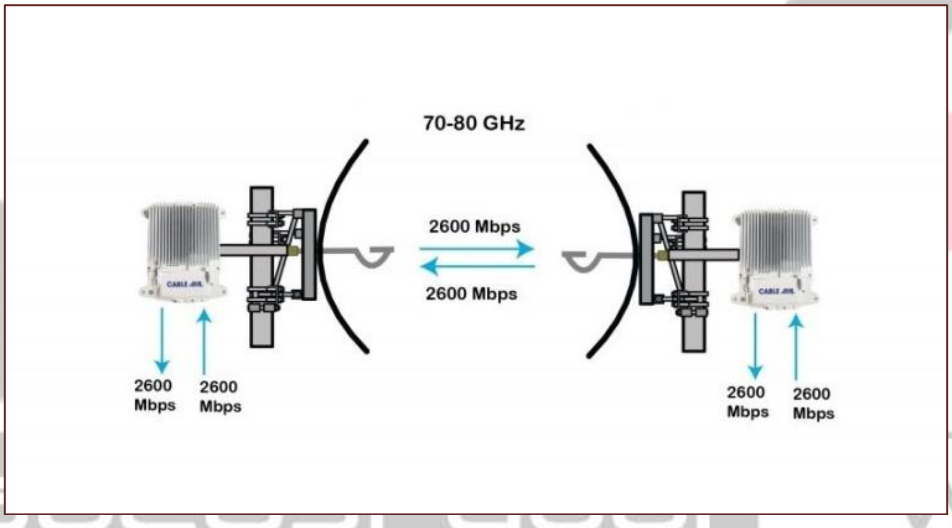
PRODUCT SPECIFICATIONS

PARAMETER	VALUE
FREQUENCY OF OPERATION	71-76GHz and 81-86GHz (FDD)
TRANSMISSION POWER	+20dBm
MAX RADIO LINK THROUGHPUT	2.6 Gbps over the air
MODULATION TYPES	QPSK/16QAM/32QAM/64QAM/128QAM/256QAM Hitless ACM (Adaptive Coding and Modulation)
FEC	Reed Solomon, multiple rates available
RF BANDWIDTH	250 and 500MHz (symbol rates software defined)
SYNCE	Ethernet line data clock frequency passthrough
SIGNAL STRENGHT OUTPUT	BNC Output, 0-3V
STATUS LEDS	
ATPC (AUTOMATIC TRANSMIT POWER CONTROL)	Adaptively controls RF transmit power to support maximum capacity under all link conditions
MANAGEMENT	In band

NETWORK INTERFACES	
RJ-45 COPPER ETHERNET	1000Base-T compliant
1GE SFP	1000Base-X2
10GE SFP	10GBASE-SR/LR3
PROTOCOL	802.3z (Gigabit Ethernet)
OSI LAYER	Physical Layer 2
MANAGEMENT INTERFACE	
MANAGEMENT ACCESS	
ALARM REPORTING	

MECHANICAL	
DIMENSIONS	57L x 33W x 36H (cm)
WEIGHT	10Kg
TEMPERATURE	-35°C to +60°C
HUMIDITY	95%, without condensation
POWER CONSUMPTION	40W maximum



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CAPACITY (Mbps) VS BANDWIDTH		
Modulation	BANDWIDTH 250MHz	BANDWIDTH 500MHz
QPSK	340	690
16QAM	690	1390
32QAM	870	1740
64QAM	1040	2090
128QAM	1210	2430
256QAM	1390	2780

SENSITIVITY VS MODULATION TYPE		
Mod Type	Receiver Threshold (250MHz)	Receiver Threshold (500MHz)
QPSK	-73.9dBm	-70.9dBm
16QAM	-63.8dBm	-64.8dBm
32QAM	-65.2dBm	-62.2dBm
64QAM	-61.9dBm	-58.9dBm
128QAM	-57.8dBm	-54.8dBm
256QAM	-56.1dBm	-53.1dBm

LATENCY IN MICROSECONDS VS FRAME SIZE (500MHz BANDWIDTH)								
ModType	64	128	256	512	1024	1280	1518	9600
QPSK	38.14	38.83	42.08	46.98	57.57	63.50	69.09	343.34
16QAM	35.89	36.62	38.50	42.34	48.88	52.35	63.94	172.55
32QAM	34.69	35.56	36.81	40.30	46.96	50.16	60.06	160.04
64QAM	33.52	34.22	35.60	39.12	44.89	47.15	51.07	183.30
128QAM	32.38	33.06	34.49	37.22	43.06	50.09	49.10	170.35
256QAM	31.30	31.91	33.29	36.34	41.79	47.85	47.42	160.85

LATENCY IN MICROSECONDS VS FRAME SIZE (250MHz BANDWIDTH)								
ModType	64	128	256	512	1024	1280	1518	9600
QPSK	60.61	61.30	66.05	73.20	90.65	128.14	106.10	369.54
16QAM	58.30	59.54	62.16	65.46	75.43	79.80	82.87	248.14
32QAM	57.26	58.00	59.86	64.78	73.72	77.16	97.78	226.44
64QAM	55.98	56.68	58.06	60.98	70.30	72.33	78.07	280.58
128QAM	54.85	55.54	57.70	61.78	65.34	80.26	70.81	255.18
256QAM	53.69	54.78	55.92	60.06	65.83	70.47	73.92	189.40

** The images and/or technical specifications are subject to change without previous notice.*

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