

## HIGH CAPACITY IP LINK SALINAS IP LINK-600UHP

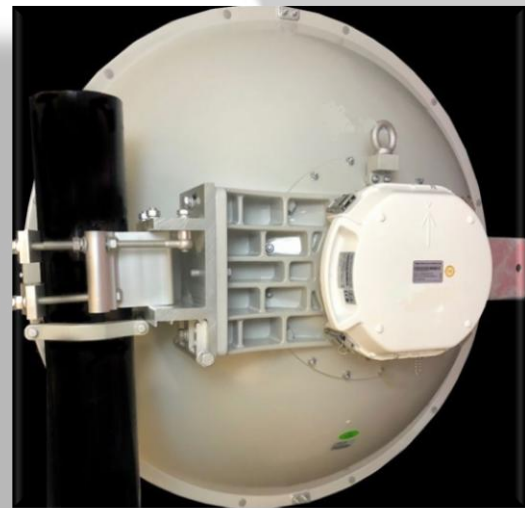
The Salinas IPLINK-600UHP is a high power point-to-point microwave link available in the 6, 7, 8 and 11GHz. The link offers throughput of up to 600Mbps full duplex in a single polarization channel (750Mbps with header compression).

The radio features hitless Advanced Adaptive Coding & Modulation (AACM) to provide link reliability in degraded channel conditions with standard modulation levels up to 1024QAM.

It also features Adaptive Power Control to implement automatic transmit power level increase on modulation downshift for improved system gain during fading. Other outstanding features include comprehensive management and monitoring capability and the best system gain available.

The system includes both fiber and copper Gigabit Ethernet interfaces with in-band and

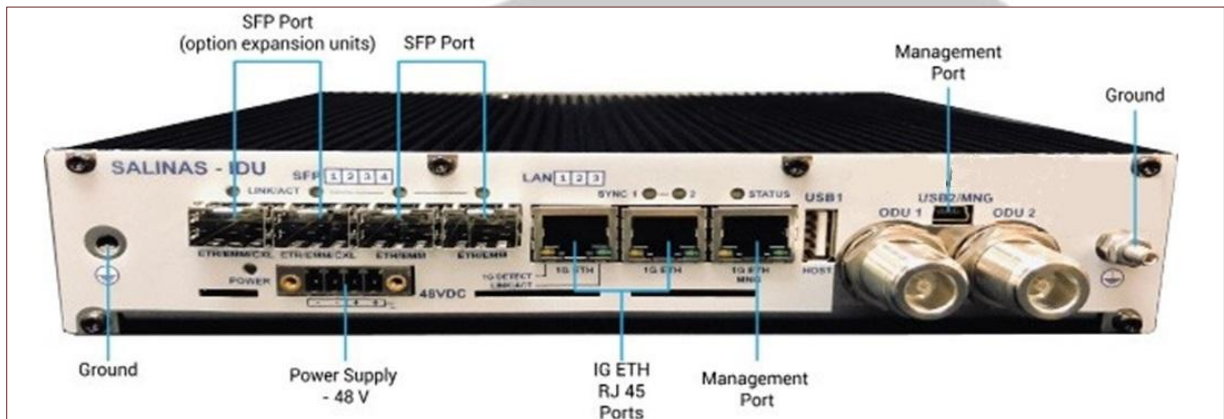
out-of-band management and can be powered directly or over Ethernet using a PoE injector. Dual input power supply support (redundant) -48V power is available. The radios are FCC and ETSI compliant and they meet have operational capability up to +65°C (149°F).



### MAIN ADVANTAGES

- 600Mbps full duplex in 80MHz channel bandwidth.
- Available in 6, 7, 8 and 11GHz licensed bands.
- Ultra-low latency & jitter in all ACM modes.
- Advanced Adaptive Coding & Modulation (AACM).
- Adaptive Power Control.
- Secure management via browser and SSH and SNMP.
- AES-256 Encryption.
- 7GigE Interfaces (3 copper RJ-45, 4 SFP/fiber).

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## PRODUCT SPECIFICATIONS

GENERAL PARAMETERS	
<b>MODEL NUMER</b>	IPLINK-600UHF
<b>FREQUENCY BANDS</b>	6, 7, 8, 11GHz, Frequency Division Duplex (FDD)
<b>CHANNEL SIZE</b>	7, 10, 14, 20, 25, 28, 30, 40, 50, 56, 60, 80MHz
<b>MODULATION FORMAT</b>	Selectable: QPSK, 8PSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
<b>MAX. UNCOMPRESSED CAPACITY</b>	600Mbps full duplex (varies by modulation, bandwidth and packet mix)
<b>PAYLOAD LATENCY</b>	200µs typical
<b>PAYLOAD TYPES</b>	Ethernet (IPv4 and IPv6 compatible)
<b>REGULATORY COMPLIANCE</b>	ETSI EN 300 019, Part 1-3, Class 3.2, Part 1-1 Class 1.2 and Part 1-20 Class 2.3 EN 300 132-2 and EN 300 217-2-2 EN 301 489-1 and EN 301 489-3 IEC 60950-1/EN 60950-1 FCC CFR47 Part 101 FCC/ANSI: FCC Part 15 Class A Unintentional Radiator RoHS
<b>SAFETY</b>	EN60950-1 ?
<b>DATA TRANSMISSION</b>	Capacity allocation: Priority Based Packet System (PBPS) gen.3
<b>MTBF</b>	>18 years

ETHERNET PARAMETERS	
<b>PACKET SIZE</b>	64-9200 bytes
<b>QUALITY OF SERVICES (QoS)</b>	Source Port, IEEE 802.1p, IPv4 TOS/DSCP, IPv6 TC, VLAN VID, SA/DA
<b>DATA SECURITY</b>	AES-128/256 Encryption

<b>NETWORK MANAGEMENT SYSTEM</b>		
<b>ITEM</b>	<b>PARAMETER</b>	<b>VALUE</b>
PORTS	Default NMS ports	ETH port LAN 3
	Additional NMS ports	USB-B in IP mode
NMS FORM	Protocols – Network	HTTPS, HTTP, SNMP v.1/v.2c/v.3, TELNET, SSH
	Protocols – Local	Serial console over USB-B
	In-band management	Via VLAN
	Out-of-band management	115kbps
IP ADDRESS	Addresses type	Primary IP/ Secondary IP/RFI/USB
	Additional function	Static Routes, NAT, Ping, Telnet
GUI	Type	WEB based
CLI	Type	athOS
SNMP	Version	SNMP v.1, SNMP v.2c, SNMP v.3
	Read access	Complete MIB
	Write access	Subset of link parameter
SECURITY	Licenses	Permanent / Time limited licenses
	Access levels	Guest/User/Admin with password security
	HTTPS certificates	Client and server certificates

<b>INTERFACES</b>	
<b>ETHERNET TRAFIC/ MANAGEMENT ACCESS</b>	3x 10/100/1000ETH (RJ-45)
<b>OPTICAL</b>	4x 1000BASE-X (SFP)
<b>OPTIONAL INTERFACE EXTENSION</b>	Up to 4 EMM cards over one SFP port Up to 64 E1/T1 ports Up to 16 ASI ports EMM-16E1T1 - up to 16E1 or 16T1 ports EMM-ASI - up to 4 ASI (DVB-T) ports in Tx or Rx mode

<b>ANTENNA</b>	
<b>SUPPORTED TYPES</b>	High performance dish antenna 2, 3, 4 & 6 foot options
<b>INTERFACE</b>	Direct slip-fit mount or remote mount using standard waveguide

<b>POWER</b>	
<b>POWER INPUT</b>	-45 to -72 VDC direct or using PoE
<b>POWER CONSUMPTION</b>	48-72W, depending on sub-band
<b>POWER PROTECTION</b>	Reverse polarity and transient clamping to 100V

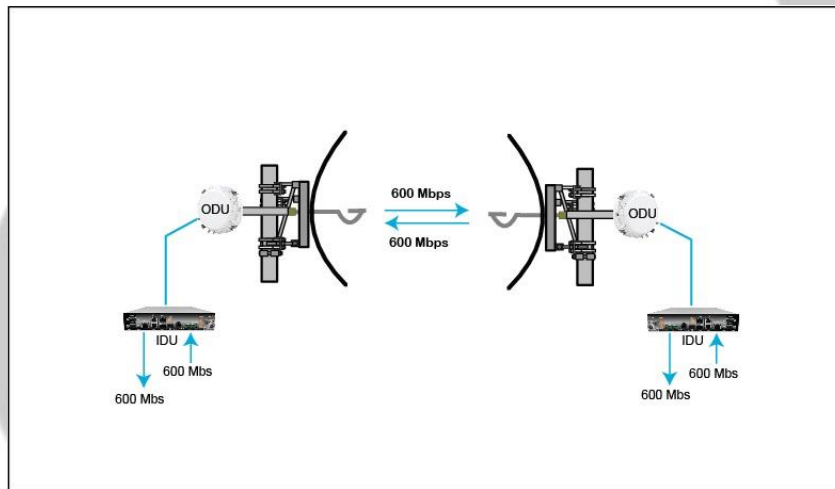
**MECHANICAL AND ENVIRONMENTAL**

**IDU**

<b>DIMENSIONS</b>	W220 x H44 x L240mm
<b>WEIGHT</b>	2.2Kg
<b>TEMPERATURE</b>	-5 °C to +45 °C / +23°F to +113°F
<b>HUMIDITY</b>	0 to 95%, without condensation
<b>ALTITUDE</b>	4.500 metres

**ODU**

<b>DIMENSIONS</b>	W277 x 239 x L92mm
<b>WEIGHT</b>	9.5Kg
<b>TEMPERATURE</b>	-33 to +55°C (ETS 300 019-2-4 Class 4M5)



**ONE-WAY FULL DUPLEX CAPACITY TABLES IN MBPS**  
Capacity Range 1518-64 Byte Packets (Mbps)

Channel bandwidth (MHz)	1518		64		1518		64		1518		64		1518		64		1518		64	
	QPSK		16QAM		32QAM		64 QAM		128AQM		256QAM		512QAM		1024QAM					
7	11.5	14.4	23.0	28.8	28.7	35.9	34.5	43.1	40.2	50.3										
10	16.5	20.6	33.1	41.4	41.3	51.6	49.6	62.0	57.9	72.4										
14	23.0	28.8	46.0	57.5	57.5	71.9	69.0	86.3	80.5	100.6	92	115.0								
20	33.1	41.4	66.1	82.6	82.7	103.4	99.2	124.0	115.7	144.6	132.3	165.4	148.8	186.0	165.3	206.6				
25	40.3	50.4	80.5	100.6	100.6	125.8	120.8	151.0	140.9	176.1	161.0	201.3	181.1	226.4	201.3	251.6				
28	46.7	58.4	93.4	116.8	116.8	146.0	140.2	175.3	163.5	204.4	186.9	233.6	210.2	262.8	233.6	292.0				
30	49.6	62.0	99.2	124.0	124.0	155.0	148.8	186.0	173.6	217.0	198.4	248.0	223.2	279.0	248.0	310.0				
40	66.1	82.6	132.3	165.4	165.3	206.6	198.4	248.0	231.4	289.3	264.5	330.6	297.6	372.0	330.6	413.3				
50	81.9	102.4	163.9	204.9	204.8	256.0	245.8	307.3	286.8	358.5	327.8	409.8	368.7	460.9	409.7	512.1				
56	94.2	117.8	188.3	235.4	235.4	294.3	282.5	353.1	329.6	412.0	376.6	470.8	423.7	529.6	470.8	588.5				
60	97.8	122.3	195.5	244.4	244.4	305.5	293.3	366.6	342.1	427.6	391.0	488.8	439.9	549.9	488.8	611.0				
80	120.0	150.0	240.1	300.1	300.1	375.1	360.1	450.1	420.1	525.1	480.1	600.1	540.2	675.3	600.2	750.3				

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<b>TRANSMITTER POWER FOR IP LINK 600UHF</b>				
<b>FQ band</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>11</b>
<b>FQ range (GHz)</b>	5.925 to 7.125	7.093 to 7.897	7.905 to 8.496	10.675 to 11.745
<b>T/R spacing (MHz)</b>	160/170 252.04 340/350	154 161 168 196 245	119 266 311.32	490/500 530
<b>QPSK</b>	33	33	33	31
<b>32QAM</b>	33	33	33	30
<b>64QAM</b>	33	33	33	30
<b>128QAM</b>	33	33	33	30
<b>256QAM</b>	32.5	32.5	32.5	29.5
<b>512QAM</b>	32.5	32.5	32.5	29.5
<b>1024QAM</b>	31	31	31	29

<b>RECEIVER SENSITIVITY (dBm) FOR FREQUENCIES UP TO 28GHz</b>								
<b>Channel width (MHz)</b>	<b>QPSK</b>	<b>16 QAM</b>	<b>32 QAM</b>	<b>64 QAM</b>	<b>128 QAM</b>	<b>256 QAM</b>	<b>512 QAM</b>	<b>1024 QAM</b>
<b>7</b>	-90.9	-84.7	-80.7	-78.3	-75.2	-72.2	-68.4	-64.9
<b>10</b>	-89.2	-83	-79	-76.6	-73.5	-70.5	-67.1	-63.6
<b>14</b>	-87.5	-81.3	-77.3	-74.9	-71.8	-68.8	-65.4	-61.9
<b>20</b>	-86	-79.8	-75.8	-73.4	-70.3	-67.3	-63.9	-60.4
<b>25</b>	-85.1	-79	-75	-72.4	-69.3	-66.3	-62.9	-59.4
<b>28</b>	-84.4	-78.1	-74.1	-71.7	-68.6	-65.6	-62.2	-58.7
<b>30</b>	-84.2	-77.9	-73.9	-71.5	-68.4	-65.4	-62	-58.5
<b>40</b>	-83	-76.8	-72.8	-70.4	-67.3	-64.3	-60.9	-57.4
<b>50</b>	-82.1	-75.9	-71.9	-69.5	-66.4	-63.4	-60	-56.5
<b>56</b>	-81.6	-75.4	-71.4	-69	-65.9	-62.9	-59.5	-56
<b>60</b>	-81.3	-75.1	-71.1	-68.7	-65.6	-62.6	-59.2	-55.7
<b>80</b>	-80.1	-73.9	-69.9	-67.5	-64.4	-61.4	-58	-54.5

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

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