

SAQR 7000

MISSION-CRITICAL | HIGH CAPACITY BACKHAUL



- Flexible modular wireless system transporting IP with native ASI and TDM data over 2 GHz - 38 GHz radios.
- High spectral efficiency delivering more than 900 Mbps per 2+0 system.
- Flexible configurations including all-indoor or split-mount architecture from 1+0 to 2+0 XPIC up to 8+0 delivering 4+ Gbps over a single path.
- Fully redundant system configurations for protecting every component.
- Very High-Power radios for long distance back-haul.
- Ideal microwave system for critical network infrastructure with secure HTTPS/SSH access, FIPS 197 256-bit AES over the air encryption at 99.9999% availability.



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Supporting channel bandwidths of up to 60 MHz, the Phoenix G2 enables transition from TDM only or ASI only networks to hybrid native ASI/T1/E1/IP networks, providing up to 16 ASI ports for video or up to 64E1/T1 lines for telephony, and Gigabit Ethernet ports for IP connectivity with total throughput of up to 900 Mbps in 2+0 configuration.



SAQR 7000
IDU modem

	ETSI	FCC
Frequency Bands	U4GHz, L6GHz, U6GHz 7GHz, 8GHz, 11GHz, 13GHz, 18GHz, 23GHz,	
Channel Bandwidths	from 7 MHz, up to 56 MHz	from 10 MHz, up to 60 MHz
Modulation	up to 1024 QAM	
Capacity	up to 900 Mbps in 2+0	
Configurations	1+0, 1+1 HSB/SD/FD, 1+0 Dual (Repeater), 2+0 (Layer 1 aggregation), 2+0 XPIC, 2+2** (with two IDUs)	
Synchronization	PTP 1588v2, SyncE	
Encryption	AES 256-bit	
Traffic/Management	3x 10/100Base-T, RJ-45 - for traffic and/or management access, 4x SFP (1000BaseSX/LX)- for traffic, also work as Extension/Protection ports, USB B- alternative serial IP management access, USB A-flash memory, 2x N-Type Female - for connection to RF's	
Management	MIB, SNMP v1/v2c /v3, Web GUI (HTTP/HTTPS), CLI (Telnet/SSH), Serial interface (USB IP port) , in-band or out-band management	
Ethernet switch	Managed Gigabit Ethernet Layer 2	
QoS	64 Level DiffServ (DSCP) or 8 level 802.1p mapped in 4 prioritization queues with VLAN support IPv6 Traffic Class	
VLAN support	802.1q, up to 4096 VLANs	
IDU Operational use	ETSI EN 300 019, Part 1-3, Class 3.2	
Max. power consumption	IDU only: <30W	

Maximum Tx Power [dBm] for Phoenix G2*

Modulation	2 GHz (VHP)**	4/U4 GHz (HP)	L6/U6 GHz (SP/HP/VHP)	7 GHz (SP/HP/VHP)	8 GHz (SP/HP/VHP)	11 GHz (SP/HP/VHP)	13 GHz (SP/HP/VHP)	18 GHz (SP/VHP)	23 GHz (SP)	38 GHz (SP)
4 QAM	+35	+33	+19/+27/+33	+19/+27/+32	+19/+27/+31	+19/+25/+29	+19/+25/+28	+19/+26	+19	+17
16 QAM	+34	+32	0.021634615	+18/+26/+31	+18/+26/+30	+18/+24/+28	+18/+24/+27	+18/+25	+18	+16
32 QAM	+33	+31	+17/+25/+31	+17/+25/+30	+17/+25/+29	+17/+23/+27	+17/+23/+26	+17/+24	+17	+15
64 QAM	+32	+30	+16/+24/+30	+16/+24/+29	+16/+24/+28	+16/+22/+26	+16/+22/+25	+16/+23	+16	+14
128 QAM	+32	+30	+16/+24/+30	+16/+24/+29	+16/+24/+28	+16/+22/+26	+16/+22/+25	+16/+23	+16	+14
256 QAM	+31	+29	+15/+23/+29	+15/+23/+28	+15/+23/+27	+15/+21/+25	+15/+21/+24	+15/+22	+15	+13
512 QAM	+30	+28	+14/+22/+28	+14/+22/+27	+14/+22/+26	+14/+20/+24	+14/+20/+23	+14/+21	+14	+12
1024 QAM	+27	+25	+11/+19/+25	+11/+19/+24	+11/+19/+23	+11/+17/+21	+11/+17/+20	+11/+18	+11	+9



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**CFIP-ASI-EXT
EAGMEXA4**

**CFIP-16E1/T1-EXT
EAGMEX16**

Channel Bandwidths	Unbalanced, 75 ohm	-
16xE1/T1	G.703-E1 balanced 120ohm for E1 mode G.703-E1 unbalanced 75 ohm for E1 mode T1.102-T1/100 ohm for T1 mode	
Scalability	Cascading up to four external modules	
Ports		
IDU connection	1x SFP port 1000Base-SX (proprietary GigE protocol) Connection to	
Connection to next External module	1x SFP port 1000Base-SX (proprietary GigE protocol)	
ASI ports	4x BNC	-
E1 ports	-	16x RJ-45
DC port	Industrial power connector	
Dimensions:	½ width 1U (45 x 210 x 240 mm) / (1.77 x 8.27 x 9.45 in) HxWxD	
Weight	1.3 kg / 2.87 lb	
Max. power consumption	IDU: <9 W	
DC port	-20V to -60V DC	

**SP/HP
ODU**



SP ODU



HP ODU

**VHP
ODU**



VHP ODU



IRFU

Ports				
Antenna	N-type or flange	N-type or flange	N-type or flange	A) N-Type or flange B) SMA Tx and Rx ports
IF to IDU	N-type	N-type	N-type	SMA
RSSI	BNC	BNC	BNC	2-port for multi-meter
Power	over IF port	over IF port	over IF port	2-pin power port (alternative to IF port)
Mechanical & Electrical				
Operational use	Conforms to ETSI EN 300 019 Class 4.1, IP65, NEMA 4X		Conforms to ETSI EN 300 019 Class 3.1E, IP20, NEMA 1	
Temperature Range	-33°C to +55°C	-33°C to +55°C	-33°C to +55°C	-5°C to +55°C
Dimensions HxWxD/width	288x288x80mm / 3.5kg	288x288x80mm / 3.5kg	280x437x110mm / 7.5kg	19" 2U rack 90x430x260 / 5.8kg
IF port surge protection	Conforms to ETSI EN 301 489-1; EN 61000-4-5; IEC 61000-4-5			
Input DC voltage	-40.5V to -57V DC (conforms to ETSI EN 300 132-2)			
Max. power consumption	13-27W	21-39W	39-55W	SP: 13-27W; HP: 21-39W; VHP: 39-55W

