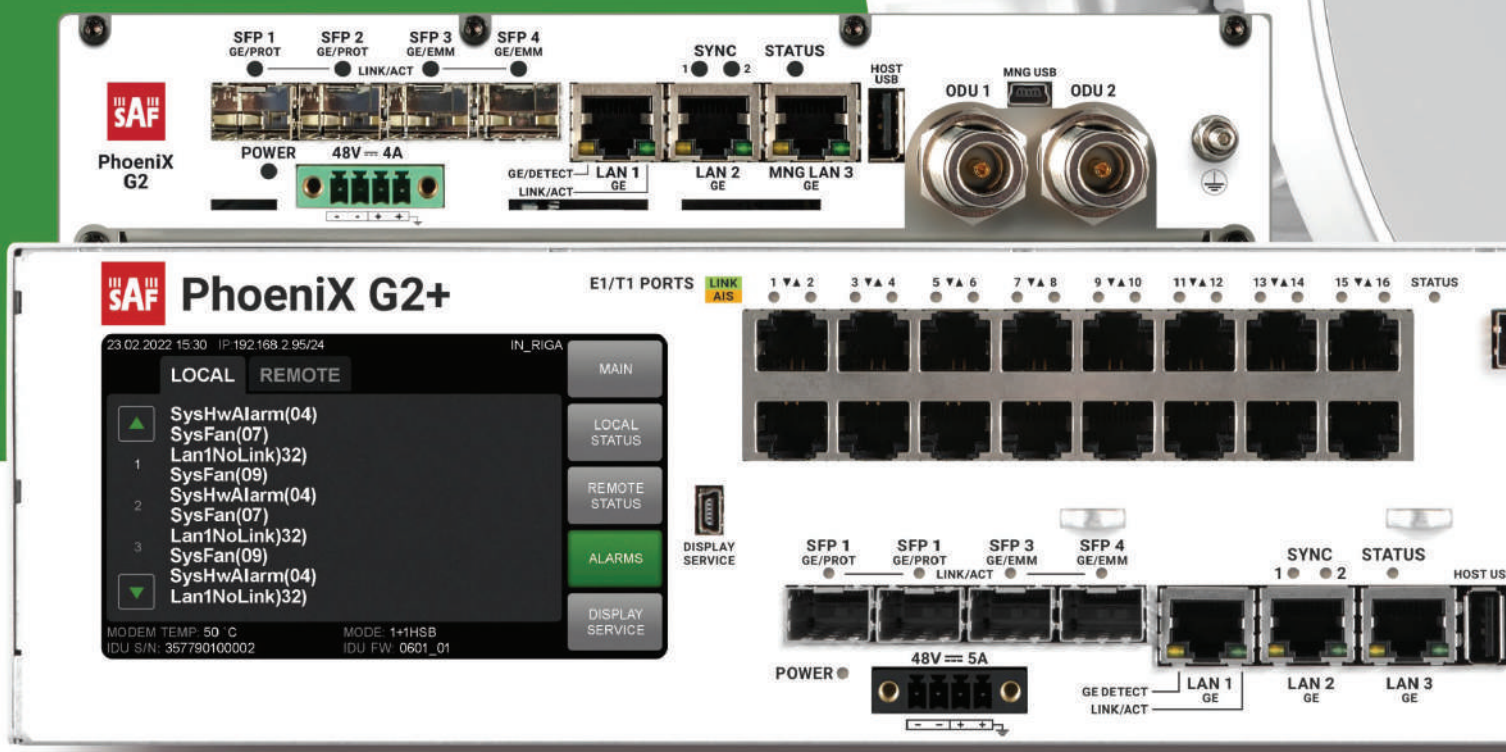
PhoeniX G2 Series

MISSION-CRITICAL & HIGH CAPACITY BACKHAUL



PHOENIX G2/G2+ FEATURES:

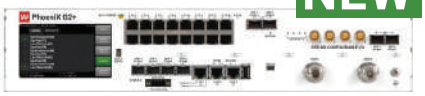
- Flexible modular wireless system transporting IP with native ASI and TDM data
- Flexible configurations including all-indoor or split-mount architecture from 1+0 and 2+0 XPIC to 1+1 and 2+2 XPIC
- Fully redundant system configurations for protecting every component
- Very High Power radios for long 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

ONLY FOR PHOENIX G2+:

- Customizable configuration in a single chassis design with ultra-reliable fanless cooling
- Touch-sensitive LCD control panel for quick and easy critical parameter monitoring

Supporting channel bandwidths of up to 80 MHz, the PhoeniX G2 Series enables a 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 a total throughput of up to 1 Gbps in 2+0 configuration.

G2 

G2+ NEW 

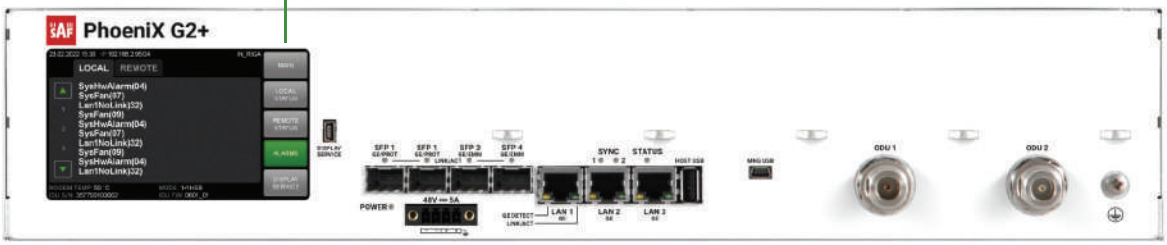
Capacity		up to 1 Gbps in 2+0 configuration	
Frequency bands		2 GHz, 2.3 GHz FCC, L4 GHz, U4 GHz, L6 GHz, U6 GHz, 7 GHz, 8 GHz, 11 GHz, 13 GHz, 15 Ghz 18 GHz, 23 GHz, 38 GHz	
Max modulation		1024QAM	
Configurations		1+0, 1+1 HSB/SD/FD, 1+0 Dual, 1+0 Star (Repeater), 2+0 (Layer 1 aggregation), 2+0 XPIC, 2+2 aggregation/protection (with two IDUs)	
Channel bandwidth	ETSI	from 3.5 MHz, up to 56 MHz	
	FCC	from 5 MHz, up to 80 MHz*	
Maximum Tx power		+37 dBm	
Modifications		IDU with external extension modules (ASI and E1/T1)	IDU w/o extensions; IDU with embedded 4x ASI; IDU w 8x ASI; IDU with 16E1/T1; IDU with 4x ASI and 16E1/T1. More extension modules can be added externally
Ethernet switch		Managed Gigabit Ethernet Layer 2	
Management		In-band (via port grouping), Out-of-band; Web based, HTTP/HTTPS; via WEB GUI (HTTP*/HTTPS), CLI (Telnet/SSH), NMS (SNMP v1/v2c/v3), Serial interface (USB IP port); SNMP traps, MIB, SNMP v1/v2c/3; Perf. monitoring	
Synchronization		PTP 1588v2	
Encryption		AES128/256	
QoS		IPv4 64 level DiffServ (DSCP) or 8 level 802.1p mapped in 4 prioritization queues with VLAN support, IPv6 Traffic Class	
Type		Split Mount (IDU + ODU) or Full indoor (IDU + IRFU)	
Cooling		3-mode Fans built-in: On, Off, Auto (controlled by internal temperature)	Fanless
Form factor		½ width 1U (44 x 220 x 240 mm) / (1.73 x 8.66x 9.45 in); 2.2 kg / 4.9 lb	19" 2U (90 x 430 x 265 mm) / (3.54 x 16.93 x 10.43 in); <3.5 kg / <6.61 lbs
Max. power consumption		IDU only: <30W	IDU only w/o ASI or E1/T1:<30W, 4xASI:<9W 16xE1/T1: <9W. IDU + 2xODU: < IDU + 150W
Temperature range		-5 °C to +45 °C / 23 °F to 113 °F / 0 % to 95 %	
Display		—	LCD touchscreen
Ports			
Ethernet traffic	RJ-45	3x 10/1000 Base-T for traffic and/or management access	
	SFP	4x 1000BseSX/LX for traffic, 2x also work as Extension/Protection ports	
ASI (optional)	BNC	Available on external extension module	up to 8x unbalanced, 75 ohm native ASI channels for ASI I/O
E1/T1 (optional)	RJ-45	Available on external extension module	up to 16x 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
IDU <-> ASI/E1/T1	SFP	Available on external extension module	1x 1000Base-SX (proprietary GigE protocol) for embedded ASI and/or E1/T1 module connection
Additional module connection	SFP	Available on external extension module	1x 1000Base-SX (proprietary GigE protocol) for additional ASI and/or E1/T1 module connection
Outband management access	RJ-45	1x 10/100/1000 Base-T for management traffic	
Serial	USB Mini-B	1x – for configuration (alternative IP)	
Flash memory	USB A	1x for log files export	
Display service	USB Mini-B	—	1x for display maintenance
ODU	N-Type Female	2x for connection to radio units	
DC power	Single block 4 pole	1x for input power source connection	

* 2 GHz, 4 GHz and 38 GHz band radios work up to 60 MHz BW.

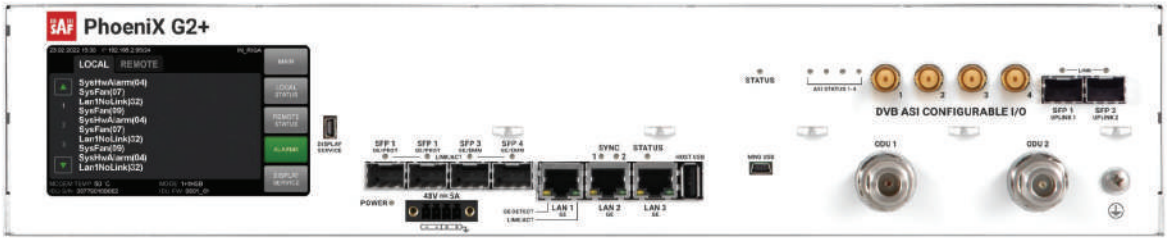
G2+ Configuration Options

LCD touchscreen functionality with a new interface

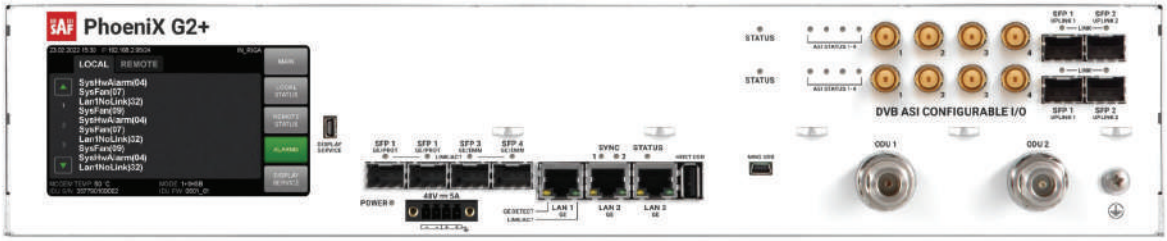
IDU w/o extensions



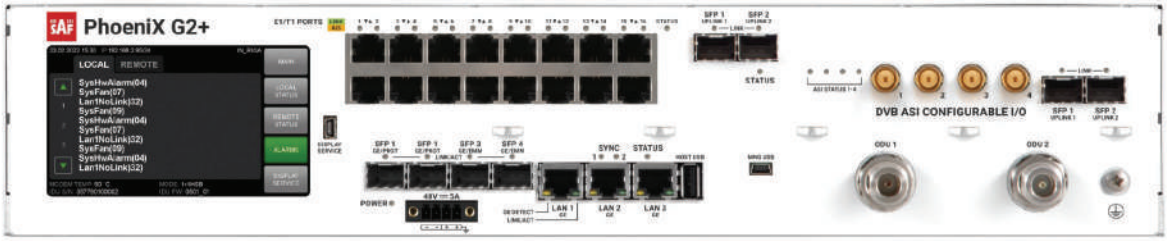
IDU with embedded 4x ASI



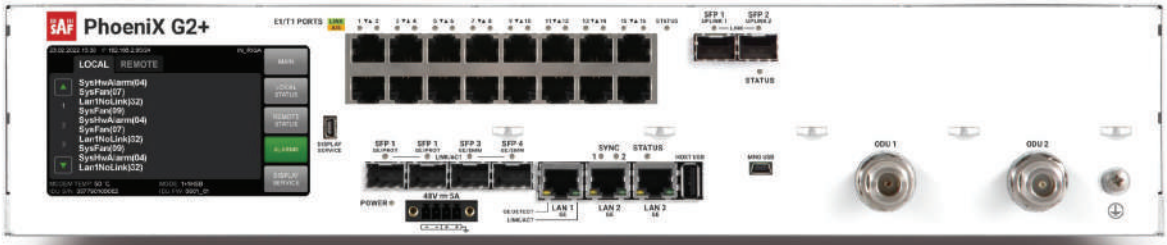
IDU with embedded 8x ASI



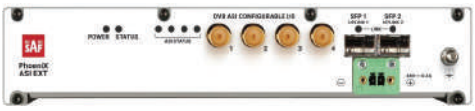
IDU with 4x ASI and 16E1/T1



IDU with 16E1/T1



More extension modules can be added externally



	ASI-EXT	16E1/T1-EXT
ASI	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 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	
Mechanical & Electrical		
Dimensions: HxWxD	½ width 1U (45 x 210 x 240 mm) / (1.77 x 8.27 x 9.45 in)	
Weight	1.3 kg / 2.87 lb	
Max. power consumption	IDU: <9 W	
DC port	-20 V to -57 V DC	

SP/HP ODU

VHP ODU

B

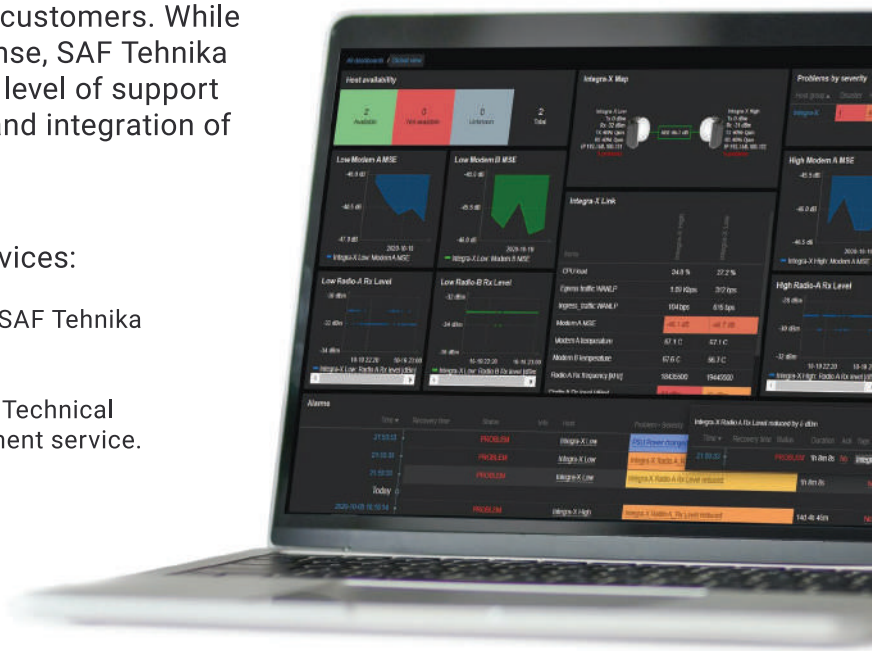
IRFU

A

	SP ODU	HP 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, IP67, NEMA 6			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	288x288x80 mm / 3.5 kg	288x288x80mm / 3.5 kg	280x437x110 mm / 7.5 kg	19” 2U rack 90x430x260 / 5.8 kg
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	39-75W	SP: 13-27W; HP: 21-39W; VHP: 39-75W

ZABBIX

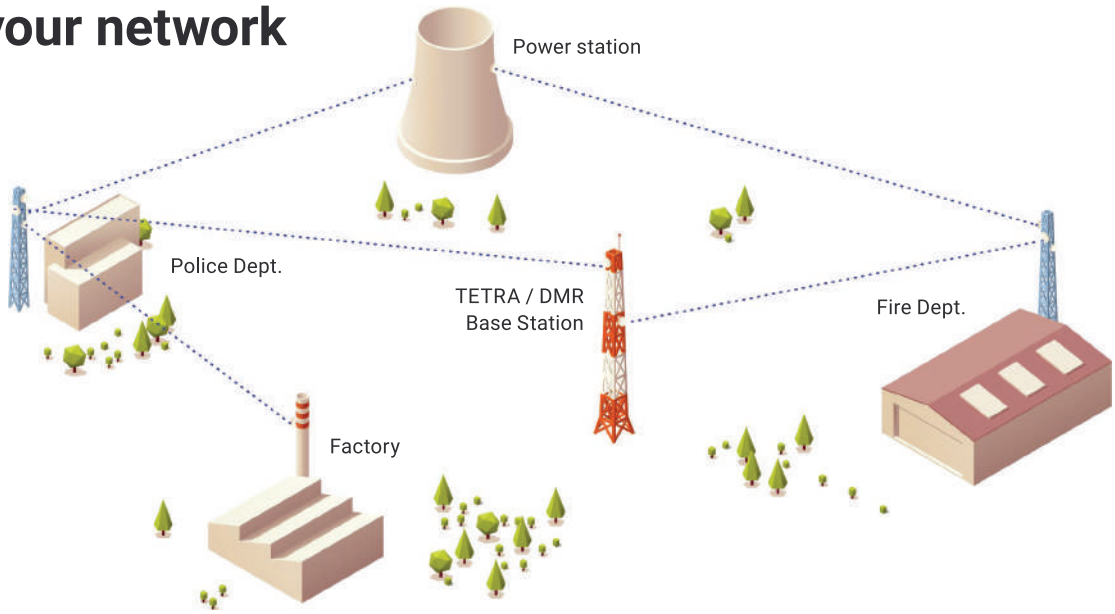
SAF Tehnika partners with leading open-source network monitoring software provider Zabbix to offer the best network monitoring experience for our customers. While Zabbix is a 100% free open source license, SAF Tehnika customers will be able to purchase the level of support they require for Zabbix customization and integration of SAF equipment.



SAF Tehnika provides the following services:

- Deployment, configuration, and integration of SAF Tehnika equipment into Zabbix.
- Zabbix Technical support on a contract basis. Technical support can be packaged with Zabbix deployment service.

PhoeniX G2/G2+ in your network



For more detailed information visit **saftehnika.com**
or contact your SAF Tehnika representative **info@saftehnika.com**
Product features may vary between different models and configurations.
They are subject to change without prior notice.