

The logo for SAF, consisting of the letters 'SAF' in a bold, white, sans-serif font, centered within a red square. Above the letters are three vertical bars of varying heights, resembling a stylized signal or antenna.

Phoenix G2

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 up to 1 Gbps 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.

Phoenix G2 IDU modem

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 1 Gbps in 2+0 configuration.



| | ETSI | FCC |
|---------------------------------|---|--------------------------|
| Frequency Bands | 2 GHz, 4 GHz, U4 GHz, L6 GHz, U6 GHz, 7 GHz, 8 GHz, 11 GHz, 13 GHz, 18 GHz, 23 GHz, 38 GHz | |
| Channel Bandwidths | from 3.5 MHz, up to 56 MHz | from 5 MHz, up to 80 MHz |
| Modulation | | up to 1024QAM |
| Configurations | | up to 1 Gbps in 2+0 |
| Capacity | 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 |
| Encryption | | AES 256-bit |
| Traffic/Management ports | 3x 10/1000Base-T, RJ-45 – for traffic and/or management access, 4x SFP (1000BseSX/LX) – for traffic, also work as Extension/Protection ports/Aggregation ports, USB B – alternative serial IP management access, USB A - flash memory port, 2x N-Type Female – for connection to radio units | |
| Management | 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 | |
| DC port | -40.5 V to -57 V DC | |
| Max. power consumption | IDU only: <30 W IDU+2xODU: <180 W | |

Maximum Tx Power [dBm] for Phoenix G2

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



CFIP-ASI-EXT



CFIP-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



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 | 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 |

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 in your network



saftehnika.com

For more detailed information about SAF Tehnika products visit www.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. SAF Tehnika © 2021