

Key Characteristics of CFIP:

- Frequency bands: **13, 15, 18 and 23 GHz**
- Capacity: **up to 108 Mbps**
- Interfaces: **E1 and Ethernet**
- Provides point-to point channels for up to 60 km apart

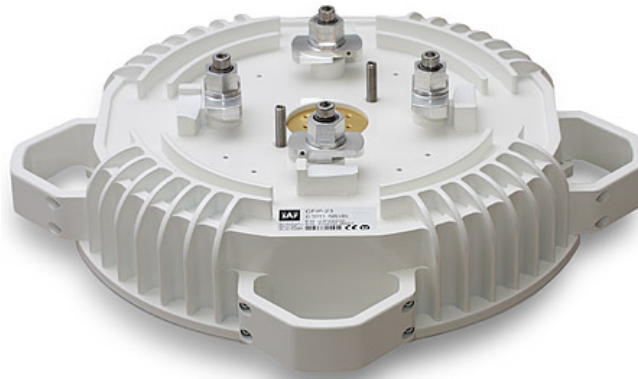
Highlights & Benefits of CFIP:

- **Excellent system gain** allows efficiently upgrade PDH radios to 108Mbps capacity avoiding the antenna size change;
- **Low power consumption** enables PoE operation and use of solar/wind power;
- **ACM** (Adaptive Coding and Modulation) and **ATPC** (Automatic Transmit Power Control) for high availability and high density deployments;
- **Very high flexibility** allow to configure the system to various channel bandwidth, modulation scheme and capacity;
- **SNMP support** for remote network monitoring and management.

SAF Tehnika Offers:

- High quality products
- Flexible delivery terms
- Professional technical and customer service support
- Fast warranty service
- Developed partners network

CFIP Product Line



CFIP product family is the new next generation product line which is targeting growing demands for data transmission over microwave radio.

As a result the primary traffic interface for CFIP radio is **Fast Ethernet**. In addition, CFIP is capable to deliver **up to 4E1** interfaces for legacy connectivity or any other use. As CFIP is capable to provide **up to 108Mbps** of bit rate to all interfaces combined, it is a perfect addition to SAF portfolio. This product family provides perfect solution for a user looking for higher than PDH E3 capacity without need for STM-1 capacity. The excellent CFIP radio and modem performance allows achieving perfect system capacity by employing 32-level modulation scheme by user's choice.

Apart from the full system capacity of 108Mbps, it is possible to configure the radio to any of **7 MHz, 14 MHz and 28MHz channel bandwidths** as well as to any of **QPSK, 16APSK and 32APSK modulations**, thus providing various capacities to suit particular need.

SAF Tehnika has employed most modern design solutions and components to create high performance compact radio with **low power consumption** - 15-20W per radio, thus we have a capability to feed the unit by using standard **PoE (Power over Ethernet)**.

CFIP is a perfect building block for any modern future proof wireless network, including mobile service providers, fixed data service operators, enterprise customers, municipal and governmental networks among others.

SAF CFIP FODU TECHNICAL SPECIFICATION		CFIP-13	CFIP-15	CFIP-18	CFIP-23
Channel bandwidth (MHz)		7 / 14 / 28			
Modulation		QPSK / 16APSK / 32APSK			
Capacity		8 - 108Mbps			
Performance					
Frequency stability (ppm)		+/-7			
Guaranteed max power (dBm)	QPSK	+19	+19	+19	+19
	16APSK	+18	+18	+18	+18
	32APSK	+17	+17	+17	+17
RSL Threshold at BER 10 ⁻⁶ , 28MHz, 32APSK, 108Mbps		-77dBm			
Adaptive Coding and Modulation (ACM)		Hitless			
System payload bit-rate (Mbps) (7MHz / 14MHz / 28MHz)	QPSK	8-10 / 16-21 / 34-42			
	16APSK	16-21 / 33-42 / 68-85			
	32APSK	21-26 / 48-55 / 100-108			
Ports					
Flange		UBR 140	UBR 140	UBR 220	UBR 220
Ethernet with PoE		RJ-45 (data traffic, management port, power)			
4E1		18-pin connector			
RSL port, RSSI, BNC connector		Output voltage vs RSL: 0 to 1.4V vs -90 to -20dBm			
Serial port for configuration		Twin BNC			
Environmental requirements					
Stationary use		Ref. ETSI EN 300 019-2-4, class 4.1E; non weather-protected locations			
Temperature range		-33° to +55°C			
Mechanical data					
Dimensions: HxWxD, mm / weight, kg		285x285x80 / 3.5			
DC Power distribution					
Max. Power (ODU only)		15-20W			
Management Features					
TCP/IP		HTTP, SNMP, Telnet			
ASCII Terminal		RS232 Serial via Twin-BNC			
Monitoring		Via Telnet, WEB GUI, SAF NMS, SNMP Manager			