CFOL – license free band
Microwave radio series
SAF Tehnika is a Latvian (Europe) designer, producer and distributor of digital microwave data transmission equipment. SAF Tehnika products provide wireless backhaul solutions for digital voice and data transmission to mobile and fixed network operators, data service providers, governments and private companies.

### Overview of SAF CFOL Products

<table>
<thead>
<tr>
<th>Model</th>
<th>CFOL-02</th>
<th>CFOL-03</th>
<th>CFOL-04</th>
<th>CFOL-05 High Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. capacity (Mbps)</td>
<td>Up to 40 Mbps @ 20 MHz (Aggregated Capacity)</td>
<td>Up to 70 Mbps @ 40 MHz (Aggregated Capacity)</td>
<td>Up to 40 Mbps @ 20 MHz (Aggregated Capacity)</td>
<td>Up to 70 Mbps @ 40 MHz (Aggregated Capacity)</td>
</tr>
<tr>
<td>Channel bandwidths (MHz)</td>
<td>5/10/20 MHz</td>
<td>Modulations</td>
<td>OFDM – Variable modulation range (64QAM, 16QAM, QPSK, BPSK)</td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>Receiver Sensitivity (widest channel)</td>
<td>20MHz channel BPSK: -92 dBm ± 2 dBm QPSK: -87 dBm ± 2 dBm</td>
<td>20MHz channel BPSK: -92 dBm ± 2 dBm QPSK: -88 dBm ± 2 dBm</td>
<td>20MHz channel BPSK: -93 dBm ± 2 dBm QPSK: -90 dBm ± 2 dBm</td>
</tr>
<tr>
<td>RF Output Power</td>
<td>24 dBm - Adjustable</td>
<td>26 dBm - Adjustable</td>
<td>23 dBm - Adjustable</td>
<td>24 dBm - Adjustable</td>
</tr>
<tr>
<td>Error Correction</td>
<td>ARQ (Selective Repeat)</td>
<td></td>
<td></td>
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<tr>
<td>64 bytes packet latency</td>
<td>2 ms</td>
<td></td>
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</tr>
</tbody>
</table>

### Management features
- Management: Web GUI; Command line management via SSH, SNMP V1/2/3 with traps supporting MIBs: 802.1, 802.1x, MIBII; Syslog support
- Security: Password Protection; AES Encryption; SSH Configuration Option

### Mechanical & Electrical
- Operating Environment: Temperature: -20°C – +60°C; Humidity: 0 – 95% (non-condensing)
- Power Supply: Power over Ethernet, 9-48V DC; 18V/1.0 A Integrated PoE Power Supply Included; Dual-layer Ethernet surge protection
- Max DC Power Consumption: 10 – 17 W
- Antenna: Integrated 19 dBi Panel / N-type connector

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*Note: 40 MHz channel width capability is dependent on spectral availability (country dependent).*
Video Surveillance

Perfect for high-bandwidth video feeds

Various Scenarios
- Corporate video cameras
- City-wide camera deployment
- Remote camera installation

Last Mile Access

- Business customers
- High bandwidth customers
- Isolated customers

<table>
<thead>
<tr>
<th>CFOL-05 Wide Power</th>
<th>CFOL-05 Low Power</th>
<th>CFOL-05-MIMO</th>
<th>CFIP-108/106</th>
<th>CFIP Lumina</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 180 Mbps @ 40 MHz (Aggregated Capacity)</td>
<td>100Mbps Eth + 4xEt/T1 (Full Duplex)</td>
<td>366Mbps Ethernet (Full Duplex)</td>
<td></td>
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</tr>
<tr>
<td>Frequency Division Duplexing (FDD)</td>
<td>24.05 - 24.25 GHz</td>
<td>20/40 MHz</td>
<td>7/14/28 MHz</td>
<td>28/40/56 MHz</td>
</tr>
<tr>
<td>QPSK / 16APSK / 32APSK / 64QAM / only for 14MHz bw: 128QAM</td>
<td>QPSK, 16APSK, 32APSK, 64QAM, 128QAM, 256QAM</td>
<td></td>
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<tr>
<td>20MHz channel</td>
<td>28MHz channel (strong/weak FEC)</td>
<td>56MHz channel (strong/weak FEC)</td>
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</tr>
<tr>
<td>BPSK: -92 ± 2 dBm, QPSK: -88 ± 2 dBm</td>
<td>QPSK: -85/ -81 dBm, 16APSK: -81/ -78 dBm</td>
<td>QPSK: -77/ -74 dBm, 32APSK: -76/ -73 dBm</td>
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<tr>
<td>16QAM: -81 ± 2 dBm, 64QAM: -75 ± 2 dBm</td>
<td>64QAM: -78 dBm, 128QAM: -75/ -71 dBm</td>
<td>64QAM: -73/ -69 dBm, 128QAM: -70/ -67 dBm</td>
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<tr>
<td>25 dBm - Adjustable, 27 dBm - Adjustable, 2x23 dBm - Adjustable</td>
<td>3 dBm - Adjustable, 3 dBm - Adjustable</td>
<td>3 dBm - Adjustable, 3 dBm - Adjustable</td>
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<td></td>
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<tr>
<td>2ms</td>
<td>0.2ms</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Telnet, WEB GUI, SAF NMS, SNMP Manager</td>
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<tr>
<td>Password protection</td>
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<tr>
<td>-33°C to +55°C, 100% all weather</td>
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<tr>
<td>Power over Ethernet</td>
<td>-48 V DC ±10%</td>
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<tr>
<td>13 - 20W</td>
<td>19-26 W</td>
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<tr>
<td>19-26 W</td>
<td>25-33 W</td>
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Integrated 23 dB Panel / N-type connector
2x Integrated 23 dB Panel / N-type connector
Circular flange for external antenna

Customized Microwave Solutions