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## DFP 5130

Direction-finding receiver

MF

HF

0.5 MHz – 30 MHz

The DFP 5130 is a digital wideband direction-finding receiver covering 0.5 to 30 MHz using direct sampling. The receiver provides a coherent digital bandwidth of 12.288 MHz which can be used in one block or in freely distributed subchannels over the entire frequency range. With exceptional technical specifications, the DFP 5130 allows simultaneously interception of multiple bands at the same time and continuous calculating of bearing using the Watson-Watt method. DFP 5130 provides selectable narrowband DDC channels for simultaneous signal monitoring using the direction-finding antenna.

### TECHNICAL HIGHLIGHTS

- coherent bandwidth of 29.5 MHz (analogue) and 12.288 MHz (digital) using direct sampling
- DF accuracy  $\leq 0.5^\circ$  RMS
- exceptional SFDR  $\geq 105$  dB
- minimum detectable signal -139 dBm @ 125 Hz
- 20 flexible narrowband DDC channels (10, 20 or 40 kHz)

### CUSTOMER ADVANTAGES

- optimized instantaneous bearings for signals of interest is achieved by dividing the coherent bandwidth into 16 flexible digital sub-bands
- exceptional technical specifications lead to fast, precise and reliable bearings
- full COMINT system in one device by combining a direction-finding receiver with 20 (option 120) DDC channels for signal monitoring

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<b>DFP 5130</b>	
Frequency range	0.5 MHz – 30 MHz
Coherent analogue bandwidth	29.5 MHz
Coherent digital bandwidth	12.288 MHz
Number of subbands	16
Preselection	7 LP / 7 HP
Frequency resolution	125 Hz
Gain control	AGC, MGC, AGC+M
Scanning speed	625 MHz / s
Processing speed	12,288,000 channels / s
Maximum input level	+30 dBm
Noise figure	≤ 12 dB
Full dynamic range	169 dB
SFDR2 (in-band) / IMFDR	105 dB
MDS (minimum detectable signal)	-139 dBm (@125 Hz frequency resolution)
Image frequency rejection	n/a (direct sampling)
Intermediate frequency rejection	not measurable
IP2	≥ 80 dBm
IP3	≥ 43 dBm
DF method	Watson-Watt
Number of channels	3
DF data resolution	0.1°
DF accuracy	≤ 0.5° RMS
Monitoring options	available
Number of channels	20 (option 120)
Bandwidth of channels	10 / 20 / 40 kHz
Audio demodulation	CW, AM, FM, USB, LSB, ISB (provided by WIN DF)
Audio bandwidth	-
Frequency stability internal reference	±10 <sup>-7</sup>
Frequency drift	< ±5 x 10 <sup>-7</sup>
Nominal impedance	50 Ω
BITE	@ module level
Standards	EN61010-1:2002 / EN61000-6-2:2002 / EN61000-6-3:2002
Operating temperature	0° C to +50° C
Storage temperature	-40° C to +70° C
Humidity	≤ 85% (non-condensing)
Protection class	IP 20
Power consumption	90 V – 264 V AC 50 / 60 Hz, 230 VA
Network interface	3x LAN 1000 Base-T (TCP / IP)
Weight	15.3 kg
Size (width / height / depth)	19" / 3 RU / 605 mm