



Front



Back

## DFP 5050 S

Direction-finding receiver

MF

HF

0.5 MHz – 30 MHz

The DFP 5050 S is a narrowband direction-finding receiver covering from 0.5 to 30 MHz. With a spectral resolution down to 7.81 Hz it delivers very high bearing fidelity across a large dynamic range which enables the clear separation of adjacent and overlapping signals. In addition to the conventional bearing results offered by a standard narrowband DF receiver, the DFP 5050 S also offers the bearing and amplitude value of a Fast Fourier Transformation (FFT) direction-finding receiver. In manual operation signals of interest can be isolated easily

### TECHNICAL HIGHLIGHTS

- selectable coherent real-time bandwidth of 10, 20 and 40 kHz
- minimum detectable signal down to -151 dBm at 7.81 Hz
- simultaneous delivery of conventional bearing ellipse and FFT DF spectrum
- excellent frequency stability due to high precision hardware design
- direct sampling receiver technology

### CUSTOMER ADVANTAGES

- perfect adaption to signals of interest via configurable bandwidth selection
- highest sensitivity through automatic filter selection and processing
- detailed analytics for a single signal without compromising scanning
- very accurate bearing ( $\leq 0.5^\circ$  RMS) for long distance signals
- no tuning delay means signals of interest can be isolated quickly and easily

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<b>DFP 5050 S</b>	
Frequency range	0.5 MHz – 30 MHz
Coherent analogue bandwidth	29.5 kHz
Coherent digital bandwidth	10/20/40 kHz
Number of subbands	1
Preselection	7 LP/7 HP
Frequency resolution	7.81 Hz, 31.25 Hz – 500 Hz
Gain control	AGC, MGC, AGC+M
Scanning speed	-
Processing speed	n/a
Maximum input level	+30 dBm
Noise figure	≤ 12 dB
Full dynamic range	169 dB
SFDR2 (in-band)/IMFDR	105 dB
MDS (minimum detectable signal)	-151 dBm (@7.81 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	n/a
Number of channels	1
Bandwidth of channels	10/20/40 kHz
Audio demodulation	CW, AM, FM, USB, LSB, ISB (provided by WIN DF)
Audio bandwidth	100 Hz – 11.2 kHz (steps)
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