RF-6G RF FRONT-END

RF-6G RF FRONT-END 500kHz – 6GHz

Super wide-band RF Tuner for your high-end signal interception system!

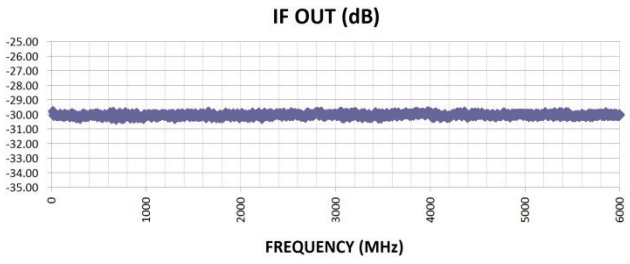
MAIN FEATURES

- **500kHz-6GHz super wide-band coverage**
- **Ultra-fast 1ms switching synthesizer**
- **+/-0.1ppm frequency stability**
- **RF to IF gain +30dB (+/-2dB)**
- **20MHz wide high-linearity IF bandwidth**
- **Excellent phase noise performance**
- **Two control interfaces: High-speed SPI 10Mbps or Asynchronous 115.25kbps**

On all frequencies, RF-6G provides excellent tuning characteristics needed for professional signal analysis and signal strength measurement. Typical applications for RF-6G are the integration into high-end monitoring systems dedicated to wide-band radio monitoring, interference detection and investigation, field-strength measurements, frequency analysis, radio propagation research, and close-range detection of illegal eavesdropping devices.

SUPERB IF-OUT ACCURACY

The 71.95MHz IF analog output offers 20MHz (+/-10MHz) of bandwidth for external peripherals. Precise factory calibration ensures that the IF output is correlated to the antenna input within only +/-2dB, and this on the entire 500kHz – 6Ghz receive range!



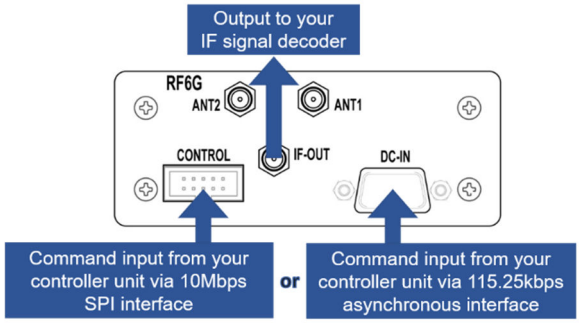
LOW NOISE DOWN CONVERTER

The 3GHz to 6GHz portion is realized by cleverly designed, internal down conversion circuitry, offering ultra-low noise figures comparable to high-end microwave-only receivers.

DDS LOCAL OSCILLATOR

An AD9912 1GSPS direct digital synthesizer, which features an integrated 14-bit digital-to-analog converter, is used at the 1st local oscillator stage to ensure ultra-fast 1ms frequency switching.

SYSTEM CONNECTIVITY



SPECIFICATIONS

Input freq. range	500kHz – 6GHz
Tuning resolution	1Hz
Frequency stability	+/-0.1ppm
Frequency switching	1ms
Output frequency	71.95MHz
Output bandwidth	20MHz (*)
Reference input(**)	10MHz +2dBm (+/-2dB)
Gain	30dB
Gain flatness	+/-2dB
Noise figure	12dB typ. @ < 1GHz
Max. input level	+15dBm
Attenuation control	0, -10, -20dB @ <1GHz
IP3	>3dBm @ <3GHz
Antenna input	2 x SMA (selectable)
Input impedance	50Ω
Output impedance	50Ω (SMA)
Control interfaces	◎SPI (IDC-10P) 10Mbps ◎Asynchronous (DB-9) 115.25kbps
Operating voltage	DC 10.7V-16V (DB-9)
Power consumption	Approx. 1.2A @ 12V
Dimensions	250 x 100 x 40mm
Weight	720g
Operating temperature	-10°C to +50°C
Supplied accessories	IDC-10P (27cm) ribbon cable DB-9 female connector with shell

Design, features & performance subject to change without notice nor obligation.

(*) Full 20MHz bandwidth available for receive center frequency of at least 10.5MHz.

(**)To facilitate system integration, this SMA socket is not pre-fitted, but supplied in the box for you to solder it, if required for your project.