

Next generation COMINT RECEIVER PLATFORM

HUGIN 4000

HUGIN 4000 is our latest receiver platform optimised for strategic COMINT applications.

Modular and built on state-of-the-art software defined radio technology, HUGIN 4000 has up to 6144 narrowband digital drop receivers (DDRs), which is by far the highest number of channels for a single receiver platform. HUGIN 4000 is a game changer in strategic COMINT, and an ideal solution for monitoring, scanning and direction finding applications.

Highlights

- 12 RF receiver channels
- Frequency range: 2 MHz - 6 GHz
- 960 MHz aggregated bandwidth
- 6144 individually configurable DDRs



High Sensitivity and Dynamic Range

To develop communications intelligence, it is vital to intercept and analyse all radio communication signals of interest. With an aggregated bandwidth of up to 960 MHz and a frequency range between 2 MHz and 6 GHz, HUGIN 4000 has very high sensitivity and dynamic range, enabling the operators to intercept both weak and strong signals concurrently.

Cost Efficiency is Paramount

Communications surveillance can be a very expensive process, as the costs incurred for monitoring are directly proportional to the number of signals intercepted. Typically, multiple receivers are required to monitor several bands of interest. Built on the latest software defined radio technology, HUGIN 4000 provides up to 12 RF input channels and 6144 DDRs on a single receiver platform, thereby substantially reducing the cost per channel.

Independent and Phase-Coherent Tuning

Each of the 12 RF input channels has a real-time bandwidth of 80 MHz. The independent tuning feature on the HUGIN 4000 enables the operators to place each 80 MHz band anywhere between 2 MHz – 6 GHz. HUGIN 4000 is also equipped with phase-coherent tuning capability, making it well suited to direction finding applications.

Versatile, Flexible and Customisable Receiver Platform

HUGIN 4000 is available in several standard configurations, ranging from a starter system with 2 RF inputs to a fully equipped receiver system with 12 RF inputs. HUGIN 4000 ships with server and client applications for configuration, control and debugging. Additionally, an intuitive and well documented API ensures easy integration with third-party COMINT monitoring software.

Technical Specifications HUGIN 4000

Receiver	
RF receiver channels (Rx)	2 - 12, SMA connectors
Frequency range	2 MHz - 6 GHz
Instantaneous bandwidth	80 MHz per RF input, individually tunable
FFT width	4k - 256k point FFT
Noise figure	6 dB (LNA)
Filter bank 2-100 MHz	HP filters: 2, 20, 30 MHz LP filters: 30, 40, 83, 100 MHz FM notch filter
Filter bank 100-450 MHz	Tunable low and high pass filters, min 20 MHz bandwidth
Sub-octave preselectors	390 - 620 MHz 540 - 850 MHz 770 - 1210 MHz 1130 - 1760 MHz 1680 - 2580 MHz 2500 - 3880 MHz 3800 - 6000 MHz
Internal reference clock @100 MHz	Phase noise: -129 dB/Hz @10 kHz
DDC Channel Specification	
Wideband DDC	1 wideband DDC per RF input, up to 80 MHz bandwidth per DDC
Narrowband DDCs	1024 - 6144 (2 RF inputs share up to 1024 DDCs)
Digital output	Demodulated audio or IQ - VITA-49 compliant (optional)
Demodulated data format	Real (16 bit) - VITA-49 compliant (optional)
IQ data format	Complex (64 bit) - VITA-49 compliant (optional)
Supported demodulations	AM, FM, LSB, USB, CW
IQ output rate	Configurable from 3 kSPS to 50 MSPS
Mechanical / Environmental	
Form factor	4U - 19" rack mountable chassis
Operating altitude	3,000 m

Novator Solutions AB, part of Novator Consulting Group, is at the forefront of SIGINT and EW technology. Our highly skilled R&D team combines expertise in high-speed data processing and software defined radio (SDR) technology to develop cutting-edge monitoring receivers and RF signal recorders. Our software proficiency, combined with modular hardware designs, allows us to create customised solutions that meet specific project and mission needs.

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