

HUGIN 4000

Strategic COMINT Receiver Platform

HUGIN 4000 is the state-of-the-art, PXI-based receiver platform for COMINT monitoring, providing high dynamic range and sensitivity. It supports monitoring receiver and scanning receiver functionality. The receiver can be configured from 2 RF inputs up to 12 RF inputs in a single PXI chassis. It provides up to 1024 configurable DDCs per 2 RF inputs with a maximum of 6144 narrowband DDCs in one system. It comes with a server architecture that allows streaming of channel data concurrently to multiple remote operators and back-end processing servers.

Highlights

- High sensitivity and dynamic range enabling operators to intercept any signals.
- A cost-efficient receiver design at a very low cost per channel ratio.
- Parallel interception of up to 6144 narrowband signals in a single receiver system.
- Contains a PXI-based analog receiver module that is uniquely optimized for strategic COMINT applications.

Features

Real-time bandwidth coverage

Enables monitoring of up to 960 MHz aggregated bandwidth (non-contiguous) between 2 MHz and 6 GHz with high dynamic range and sensitivity.

Configurable DDCs

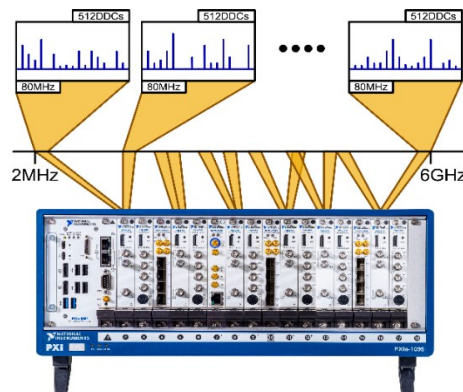
Each of the 6144 DDCs is individually configurable and can be reconfigured in real-time including center frequency, bandwidth, and gain.

Direction Finder

HUGIN 4000 is prepared for adding real-time direction finder functionality thanks to its phase coherent tuning capabilities.

“This will be a game changer for strategic COMINT.”

Author: Product Manager, undisclosed SIGINT government account



HUGIN 4000 PRELIMINARY SPECIFICATIONS	
RECEIVER	
RF receiver channels (Rx)	2 – 12, SMA connectors
Frequency range	2 MHz - 6 GHz
Instantaneous bandwidth	80 MHz per RF input, individually tunable; aggregated up to 960 MHz
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 for full 80 MHz bandwidth per RF input
Narrowband DDCs	1024 – 6144 (2 RF inputs share up to 1024 DDCs)
Digital output	Demodulated audio or IQ – VITA-49 compliant (option)
Demodulated data format	Real (16 bit) – VITA-49 compliant (option)
IQ data format	Complex (64 bit) – VITA-49 compliant (option)
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	3000 m

About Novator Solutions

Novator Solutions AB, part of Novator Consulting Group, develops systems for customers both as consultants in customer projects, and as suppliers of complete turn-key systems, including mechanics, electronics, assembly, installation, maintenance, and support.

Spectral Data Analysis (SDA) Division

The SDA Division focuses on product & system development within SIGINT & EW. The R&D team applies its extensive know-how in high-speed data processing and software defined radio (SDR) technology to develop next generation COMINT receivers and ELINT signal recorders.

The business model combined with a modular hardware architectures allows Novator Solutions to provide customized products and complete turn-key solutions tailored to specific project or mission requirements.

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