The RF Experts

GENHAWK™ Vector Signal Generator

GH-60

Field Ready. Lab Accurate.

Use precision RF test signals wherever you go with GenHawk! Our vector signal generator keeps up with a durable form factor made popular in Bird's SiteHawk and SignalHawk families of Cable & Antenna Analyzers and Spectrum Analyzers. Field engineers, technicians, product designers, and compliance engineers will find use in the GH-60's 5 hour battery life, touch-screen interface, 145 dBm dynamic range, and many supported digital modulation formats.

The GH-60 is a versatile tool for testing in applications like Distributed Antenna Systems (DAS)/Indoor Coverage, field interference, noise immunity, EMC susceptibility, receiver sensitivity, and more. With a base frequency range up to 6 GHz and 20 MHz modulation bandwidth (optionally up to 100 MHz), the GH-60 supports emulating the most common wireless standards from 5G to WCDMA. Custom digital modulation options allow easy generation of QPSK, FSK, and QAM signals while an arbitrary mode allows generation of near any possible RF signal.

PRODUCT FEATURES

- **High portability & long life battery:** With a form factor that can easily slip into a bag, the GenHawk still offers up to 5 hours of usage and can be charged without interrupting the RF output
- **Versatile operating system:** Based on Android, GenHawk allows users to install other applications as needed, allowing a wider variety of field testing on a single device.
- **Rich functionality for general digital modulation:** Digital modulation is an important signal modulation method for modern telecommunications. It has better anti-interference ability and safety that allows an output of a variety of digital modulated signals as used in standards like Wi-Fi, DVB or ATSC, IEC 60601 and more.

Truly portable signal generation that mirrors the real world - backed by over 80 years of RF expertise.

Bird

HANDHELD VECTOR SIGNAL GENERATOR

GH-60

Specifications

RF OUTPUT

Frequency Range	10 MHz to 6 GHz (upgradable to 300 kHz to 6.5 GHz with MTX-S020)
Frequency Accuracy	+/- 0.5 ppm
Frequency Resolution	0.1 Hz
Output Settling Time	<1.5 ms (CW)
Power Range	-110 dBm to +10 dBm when f < 2 MHz -130 dBm to +15 dBm when f ≥ 2 MHz
Power Resolution	0.1 dB
Power Accuracy	±0.75 dB @ ≥-80 dBm ±1.5 dB @ -110 dBm to -80 dBm ±2.5 dB @ <-110 dBm
VSWR	<2.0 (typ.)
Max Reverse Power	0.01 W
Harmonic CW, ≤+10 dBm	≤-22 dBc @ 300 kHz ≤ f < 2 MHz ≤-30 dBc @ 2MHz ≤ f ≤ 6.5 GHz
Nonharmonic CW, ≤+10 dBm	≤-25 dBc @ 300 kHz ≤ f < 10 MHz ≤-35 dBc @ 10 MHz ≤ f < 500 MHz ≤-50 dBc @ 500 MHz ≤ f < 6.5 GHz
Phase Noise	≤-119 dBc/Hz (typ.) @ 1 GHz ≤-110 dBc/Hz (typ.) @ 3 GHz ≤-104 dBc/Hz (typ.) @ 6.5 GHz
Temperature Stability	± 1 ppm @ 0 °C to 50 °C
Error Vector Magnitude (EVM)	≤2% (typ.)
Wave Quality ρ	> 0.9999

MODULATION

Modulation Bandwidth	20 MHz (upgradeable to 100 MHz with MTX-S019)
Pulse Modulation (with MTX-S010)	Pulse Period: 10 µs to 40 s Pulse Width: 100 ns to 40 s Width Resolution: 10 ns
Analog Modulation Types (optional)	Analog Modulation: AM | FM | PM Multi-Tone: MSB | USB | LSB
Mobile Communication Standards (optional)	GSM | WCDMA | TDD-LTE | FDD-LTE | NB-IoT | LoRa | 5GNR
Digital Modulation Types (with MTX-S008)	BPSK | QPSK | OQPSK | 8PSK | MSK | FSK | ASK 16QAM | 32QAM | 64QAM | 128QAM | 256QAM
LTE Channels (with MTX-S003, MTX-S004)	PSS | SSS | CSRS | PBCH | PCFICH | PHICH PDCCH | PDSCH | PUSCH | PUCCH | PRACH | SRS

CONNECTIONS

Connections	RF Output: Type N, female, 50 Ω USB (for communication): USB type-C Power: DC 12V barrel

ENVIRONMENTAL

Operating Temperature	0 °C to 50 °C
Storage Temperature	-20 °C to +70 °C

System

Power Supply	AC Input: 110 to 240 V, 1.5 A, 50 to 60 Hz DC Output: 12V, 3A
Recommended Calibration Interval	1 Year
Warranty	3 Years

PHYSICAL

Size	7.8 in (h) x 3.7 in (w) x 2.4 in (d) 197 mm (h) x 93 mm (w) x 61 mm (d)
Weight	2 lbs. / 0.9 kg

STANDARD ACCESSORIES

Hard Carrying Case	7002A218-2
Soft Carrying Case	7002A219-1
AC Adapter (12 VDC)	SK05T-1200300Z
Touch Pen (stylus)	SK-TP-112
USB Adapter (USB-C to USB-A)	SK-CONN-OTG-2
USB Drive	5A2745-1
Lithium Ion Battery	SK-BTY-7468

OPTIONAL ACCESSORIES

RF Cable	
50 Ohm N-N cable	T5-RFCAB-NmNm-90101
50 Ohm N-SMA cable	T5-RFCAB-NmSMAm-90102

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GH-60 Configurations, Options & Ordering

MODEL NUMBER

GH-60	Handheld Vector Signal Generator

SOFTWARE OPTIONS

MTX-S001	GSM Modulation License
MTX-S002	WCDMA Modulation License
MTX-S003	TDD-LTE Modulation License
MTX-S004	FDD-LTE Modulation License
MTX-S005	NB-IoT Modulation License
MTX-S006	LoRa Modulation License
MTX-S008	Digital Modulation License
MTX-S009	ARB License
MTX-S010	Pulse Modulation License
MTX-S011	Analog Modulation License
MTX-S012	Sweep Mode License
MTX-S013	Multi-Tone License
MTX-S014	5G NR License
MTX-S016	Linear Frequency Modulation License
MTX-S018	Additive Noise Generator
MTX-S019	100 MHz Modulation Bandwidth
MTX-S020	300 kHz to 6.5 GHz Frequency expansion

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