

## RFEYE STORMCASE 100-18

# MAN-PORTABLE SPECTRUM MONITORING SYSTEM

Mission-ready integrated solution for standalone spectrum surveillance and mobile monitoring operations.

The RFeye Stormcase 100-18 is a man-portable integrated system designed for easy mobile spectrum monitoring from a fully autonomous and ruggedized standalone unit. Built into a tough storm case with thermostatically-controlled fans, the system includes a Node 100-18, internal and external antenna ports, high-performance rechargeable battery and integrated SSD memory for high-volume data collection during mobile field operations.

Embedded data logging software applications are typically pre-programmed with the required measurement profile prior to deployment, allowing autonomous spectrum surveillance and surveying operations to be performed by non-technical personnel where necessary. Data is visualized and analyzed post-survey using RFeye application software.



# STORMCASE 100-18 SPECIFICATIONS



## Receiver

Integrated receiver 1 x Node 100-18

## Frequency

Range 9 kHz to 8 GHz

## Noise figures at maximum sensitivity

9 kHz to 0.12 GHz 12 dB typical

0.12 GHz to 6 GHz 8.5 dB typical

5 GHz to 10 GHz 10.5 dB typical

10 GHz to 18 GHz 13 dB typical

## Phase noise

Receiver input at  $\leq 0.5$  GHz  $\leq -125$  dBc/Hz at 20 kHz offset

Receiver input at  $> 1$  GHz  $\leq -115$  dBc/Hz at 20 kHz offset

## Signal analysis

Instantaneous bandwidth 100 MHz

Tuning resolution 1 Hz

## Internal frequency reference

Initial accuracy @ 25°C  $\pm 0.1$  ppm typical

Stability over temperature  $\pm 0.3$  ppm typical

Ageing  $\pm 0.04$  ppm per day

## Programmable sweep modes

Sweep speed at 2 MHz RBW 390 GHz/s typical

Sweep speed at 61 kHz RBW 320 GHz/s typical

User programmable modes Continuous, single timed, user trigger and adaptive

Trigger-on-event modes User defined masks, actions and alarms

## Sampling

Resolution 16 bits per channel (I&Q)

Rate 125 MS/s I&Q

## Third order intercept points with AGC

$\leq 1$  GHz + 20 dBm typical

$> 1$  GHz to  $\leq 6$  GHz + 15 dBm typical

$> 6$  GHz to  $\leq 18$  GHz + 20 dBm typical

## Local oscillator

Re-radiation  $\leq -90$  dBm typical

## Frequency references

Selectable GPS Internal or external

Optional: GPS Holdover Reference

Internal input 10 MHz  $\pm 10$  ppm

## Processor sub-system

CPU Intel E3845 quad core

## System software

Boot firmware BIOS

Operating system Linux, kernel v2.6

## Data storage

Removable SSD 512 GB (1 TB option)

## I/O Ports

RF input (External) 3 x N-type, 9 kHz - 18 GHz

GPS (External) N-type (by-passable with internal antenna via Int/Ext patch)

DC Power (External Input) 1 x 4-pin Amphenol MS 3102 series

Network (External) 1 x 1 GigE

Universal Serial Bus (Internal) 1 x USB 2.0

Data Logger Internal control switch and status LEDs

## Power

Power Adapter 65W (External) 90-264 VAC input, 24VDC 2.7 A output

Battery Charger (External) Universal, 100-240VAC

Battery (Internal) 9.9 Ah Lithium-ion, rechargeable 5 hrs. nominal operation.

Optional: High Capacity Battery Pack  $> 10$  hrs. operation with ext Hot-swappable batteries

## Power consumption

Nominal @ 20°C 50 W

Maximum 65 W

## Environmental

Operating temperature -30 to +50°C (-22 to 122°F)

Storage temperature -40 to +71°C (-40 to 160°F)

Ingress protection IP55 minimum

## Mechanical

Dimensions 490 x 390 x 230 mm (19.3 x 15.4 x 9.1 inches)

Weight (case only - no battery) 14 kg (31 lbs)

Weight (single 9.9 Ah battery) 1.5 kg (3.3 lbs)



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UK Certificate number: FS576625