CRFS | EXTRAORDINARY RF TECHNOLOGY

DATA SHEET

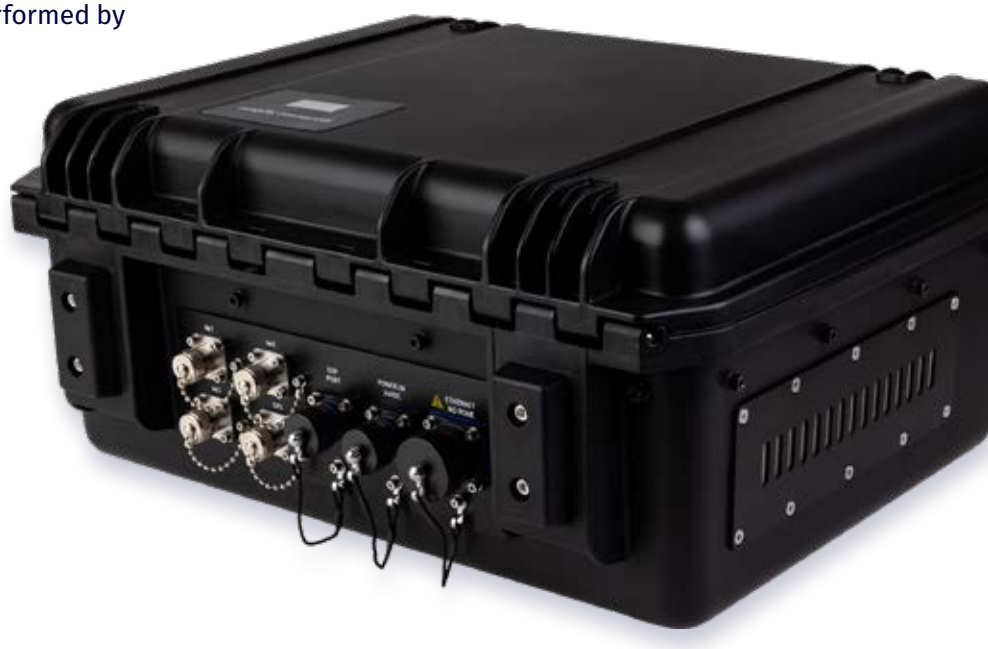
RFEYE STORMCASE 100-18

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 ≤ 0.5 GHz	≤ -125 dBc/Hz at 20 kHz offset
Receiver input at > 1 GHz	≤ -115 dBc/Hz at 20 kHz offset

Signal analysis

Instantaneous bandwidth	100 MHz
Tuning resolution	1 Hz

Internal frequency reference

Initial accuracy @ 25°C	±0.1 ppm typical
Stability over temperature	±0.3 ppm typical
Ageing	±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

≤ 1 GHz	+ 20 dBm typical
> 1 GHz to ≤ 6 GHz	+ 15 dBm typical
> 6 GHz to ≤ 18 GHz	+ 20 dBm typical

Local oscillator

Re-radiation	≤ -90 dBm typical

Frequency references

Selectable	GPS Internal or external
Optional:	*GPS Holdover Reference*
Internal input	10 MHz ±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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bsi. ISO 9001:2015 Quality Management
UK Certificate number: FS576625