

ELITE Fusion Datasheet

KEY FEATURES

- ▼ The ultimate device for secure portable communications
- ▼ All your team's communication needs within a single device
- ▼ Enable radio users to connect with fixed line telephones and cellular telephone users
- ▼ Support for Government approved crypto devices



COMPATIBLE WITH



IP Router



Acceleration



Network Security



Four wire



Secure voice



POTS voice



VoIP



Serial data



Hand portable

The ELITE Fusion provides secure field-based communications for government, military and sensitive commercial users.

CONNECTIVITY FOR THE ENTIRE TEAM

The ELITE Fusion has been designed to securely connect a wide range of Push-To-Talk radios, analog phones, VoIP phones and other devices such as laptop, either back to headquarters or to each other locally.

INTEGRATED TOUCHSCREEN

The integrated touchscreen with night mode allows users to easily provide secure communications on-site within minutes.

SMART NETWORK SELECTION

Users set priorities to identify the networks they prefer. This could help minimize costs on more expensive networks, such as satellite or cellular, when Wi-Fi networks are available.

AUTOMATIC NETWORK SWITCHING

The unit intelligently monitors available networks and will automatically switch networks, based on availability or user preference. Switching can occur across all inbuilt Wi-Fi, 3G, satellite and fixed line network ports, and via USB connected devices, such as 4G LTE dongles.

INDUSTRY LEADING SECURITY

The ELITE Fusion is compatible with a wide range of government level crypto devices. It comes with support for secure tunneling as standard, to ensure communications remain private.

OPTIMIZATION & ACCELERATION

Integrated voice optimization and data acceleration features can reduce bandwidth requirements by up to 65 % and increase downloads speeds.

MIX AND MATCH DEVICES

Compatible with a wide range of radio manufacturers and frequencies, the ELITE Fusion can seamlessly integrate with industry leading radio dispatch systems and telephone systems.

Technical Data

Form Factor:	Standalone enclosure will split into two parts (red and black enclaves)
Operating Conditions:	0 to 50degC ambient air temperature 0-85 % RH non-condensing
Storage Conditions:	-30 to 80degC ambient air temperature 0-95 % RH non-condensing
MTBF:	TBC
Dimensions:	12.68 x 6.93 x 1.26 in (red and black combined) / 322 x 176 x 32mm (red and black combined)
Weight:	3.53lb / 1.6kg
Nominal Rating:	12V DC@3A Black enclave and 12V DC@1A Red enclave
Input Voltage Range:	The ELITE Fusion requires 10-15V DC@3A which may be provided by the power adaptor included with the product and/or an external 12V battery. The power adaptor requires 100-240V 50/60Hz for correct operation.
Consumption:	60W max combined, typical TBC
Docking:	Mechanically couples red and black enclaves, provides DC power feed to red enclave
DC Power/Battery:	3-way locking power connector
Indicators:	Black enclave: per ethernet port yellow/green LEDs. Red enclave: 2 single-color ethernet port LEDs, 1 tricolor status LED.
Night mode button:	Extinguishes all LEDs (both black and red enclaves) and display backlight
Part number:	ELITE/FUSION/BLACK and ELITE/FUSION/RED

BLACK ENCLAVE SPECIFICS

Cooling:	Low noise (35dB/A) fan
Display:	5" TFT LCD display with capacitive touch panel, 800x480 pixel
PWR OUT:	4-way locking power connector
USB:	2 x USB2.0
USB/SATA:	USB2.0/S-ATAII
Storage:	SIM slot: mini-SIM, SD slot: 32GB capacity Class 10 SDHC card included
10/100base-T Ethernet ports:	1 x CT and 2 x WAN, 8-way RJ45 switched
Presentation:	Auto-MDIX
Formats:	IEEE 802.3i(10base-T), IEEE 802.3u(100base-TX)
Protocol Support:	DNS Client, DHCP Client/Server, Telnet, SSH, IKE/IPSec, NAT (TBC)
Functionality:	Static routing, IPv4 router, DHCP Client/Server/Relay, UDP Relay for Broadcasts, Fragmentation and Reassembly, Bandwidth management, IEEE802.1d Spanning Tree Bridging, IEEE802.1q VLAN support
WLAN port:	2.4GHz and 5.2GHz bands, 2 dual internal omni-directional antennae
Functionality:	IEEE802.11a, IEEE802.11b, IEEE802.11g, IEEE802.11n (subject to limitations)
WWAN port:	850/900/1800/1900MHz bands, single internal omni-directional antennae
Functionality:	2G, 2.5G and 3G operation

BLACK ENCLAVE SOFTWARE FEATURES

Operating System:	OPUS including Multi-bearer, Secure and Enhance (SCPS and PACE+ optimization) Application Modules
Tunneling Protocols:	IPSec, IP-in-IP, GRE plus others (Detailed list available on request)
Encryption Algorithms:	DES, AES 128-bit, AES 192bit, AES 256bit, Null plus others (Detailed list available on request)
Authentication Algorithms:	MD5, SHA1 96 -160bit, SHA2 256bit - 512bit plus others (Detailed list available on request)

RED ENCLAVE SPECIFICS

Cooling:	Conduction by internal Heat Jacket to case
Reset:	Via concealed push-button on rear panel
10/100base-T Ethernet ports:	1xPT + 2xLAN , 8-way RJ45 switched
Presentation:	Auto-MDIX
Formats:	IEEE 802.3i(10base-T), IEEE 802.3u(100base-TX)
Analogue voice/FAX ports:	2 x RJ11 (FXS) + 2 x 8-way RJ45 (4-wire)
Interfaces:	2-wire FXS for connection to telephone with ring voltage/cadence generation and dial pulse/ring trip detection Radio Relay with PTT and COR support. Gain adjustment range +8.75 to -34dBm and DC bias for direct microphone connection.
Signaling:	E&M, Pulse, DTMF, Call Progress
Echo cancellation:	G.168 adaptive (16/32mS tail)
Coding delay:	Per algorithm

Gain:	± 31dB programmable in 1dB
Compression:	G.723.1 (5.3/6.3kbps MP-MLQ), G.729 Annex A (8kbps CS-ACELP), G.726 (16-40kbps ADPCM), G.727 (16-40kbps E-ADPCM), G.711 (64kbps PCM) μ -law or A-law
Relays:	DTMF, Group 3 FAX relay at 2400-14400bps, STU IIB, STU III, STE in STU III mode & FNBDT at 4800-9600bps, V.32bis Modem relay up to 14400bps
Asynchronous serial ports:	2 x DB9
Electrical interface:	V.24/RS232 serial as DTE
Speeds:	Async up to 115200bps at standard baud rates
Format:	5-8 data bits, OENMS Parity, 1, 1.5 or 2 stop bits
Protocol:	Transparent

RED ENCLAVE SOFTWARE FEATURES

Operating System:	VOS
Protocol Support:	DNS Client, DHCP Client/Server, Telnet, RIPv2, OSPF, SSH, IKE/IPSec
Functionality:	Vocality IP Aggregate, IP routing, SIP voice gateway, IPv4 router, DHCP Client/Server/Relay, UDP Relay for Broadcasts, Fragmentation and Reassembly, Bandwidth management, IEEE802.1d Spanning Tree Bridging, IEEE802.1q VLAN support

ELITE Fusion is a product under continuous development.

Information subject to change. Correct at time of printing. July 2016.

Please be advised that the ELITE Fusion product is subject to UK dual-use export control restrictions. In addition Vocality offers two variants of VOS software that can be used in the Red Endave — one including IPSec and SSH features which is subject to UK dual-use export control restrictions and one without these features.

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