DUAL NETWORK AIRCRAFT TRACKING
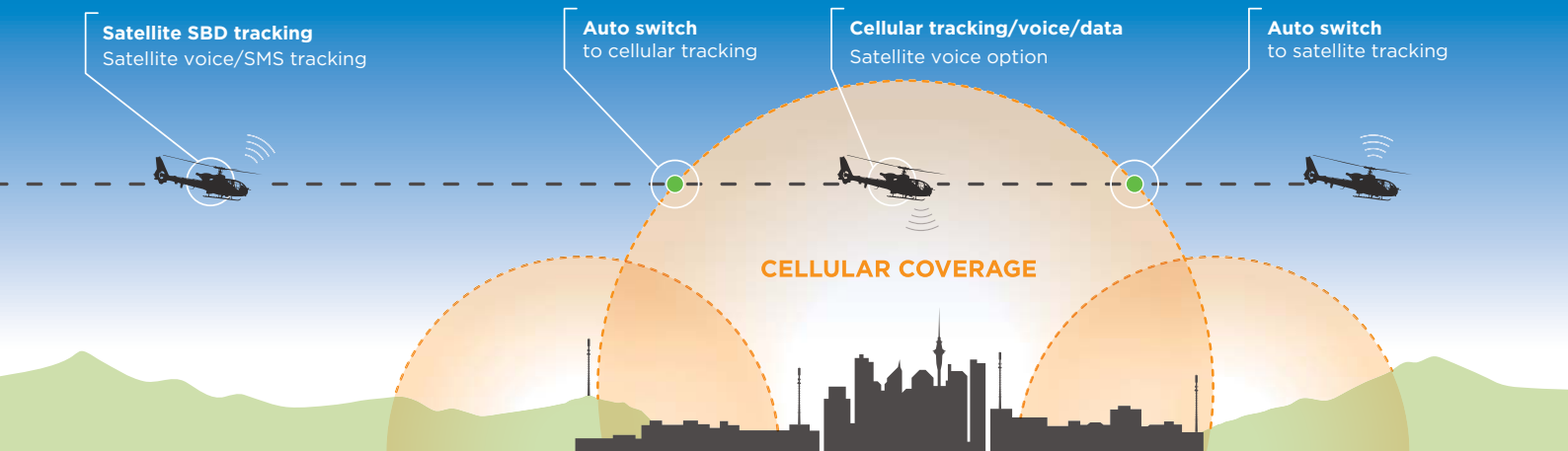
GLOBAL SATELLITE COVERAGE

Satellite SBD tracking
Satellite voice/SMS tracking

Auto switch
to cellular tracking

Cellular tracking/voice/data
Satellite voice option

Auto switch
to satellite tracking

CELLULAR COVERAGE

DZMx is the only system that offers dual network, uninterrupted GPS tracking via satellite and cellular networks, significantly reducing your costs.

- **Uninterrupted tracking** - even when on a call
- **Tracking via satellite and cellular networks -** uses lowest cost option when in range
- **NEW: Cellular IP tracking** - more GPS positions for even less cost
- **Event driven-tracking** - user configurable
- **Uses Truepath™** - provides more precise flight path mapping.

THE SKYROUTER™ WEB PORTAL

SKYROUTER™

SkyRouter™ is the industry-leading fleet management and operation portal tracking thousands of assets in over 50 countries. Its intuitive, sophisticated and visually engaging cloud based real-time platform is accessible on any Android or iOS device.

DZMx integrates:

IRIDIUM PHONE IN FLIGHTCELL CRADLE

Use Iridium handset for aircraft satcoms **or** standalone use away from the aircraft. Versions for:

- Iridium Extreme
- Iridium 9555
- Iridium 9505/A

DZMx REMOTE HEAD

Enables **full** control of DZMx from up to two additional crew positions.

ETHERNET/USB HUB

Provides connection options for:

- Tablets, PCs, other on board systems
- WIFI/Ethernet router
- USB for firmware upgrades and data downloads.

DZMx SPECIFICATIONS

ELECTRICAL		
Input Voltage		12 – 32VDC
Power Supply Current		~1A @ 28VDC
ICS to DZM Audio	Input Levels	20mVrms to 1.15Vrms, adjustable
		775mVRMS nominal
	Input impedance	600Ω
Microphone bias voltage		12V via 2.2kΩ
DZM to ICS Audio	Output levels	Up to 5Vrms, adjustable
		775mVRMS nominal
	Output impedance	150Ω
Backlighting Control		AC/DC, 0 - 32V
		User calibrated High/Low set-points
Backlight colour	Green 520nm.	Designed for NVIS compliance.
GPS	Antenna bias voltage	5V
	Antenna current	Up to 100mA
	Sensitivity	-162dBm (with Flightcell Antenna)
	Time to first fix	26s

MATERIALS	
Aluminium 6061	

CONNECTORS	
Mounting fasteners:	DZUS or M5
Main connector:	1 x D25 male plus 1 x D25 female **or**
	1 x D38999 male (military versions)
Antenna connectors:	Transceivers TNC
	GPS: BNC

DIMENSIONS	DZUS mount		GA mount	
Faceplate width:	146mm	5.75"	158mm	6.22"
Body width:	126mm	4.96"	126mm	4.96"
Faceplate height:	57mm	2.24"	60mm	2.36"
Body height:	54mm	2.13"	54mm	2.13"
Depth (front to rear faces):	110mm	4.33"	110mm	4.33"

WEIGHT	
	580-720g (1.21-1.59 lbs)
	depending on configuration

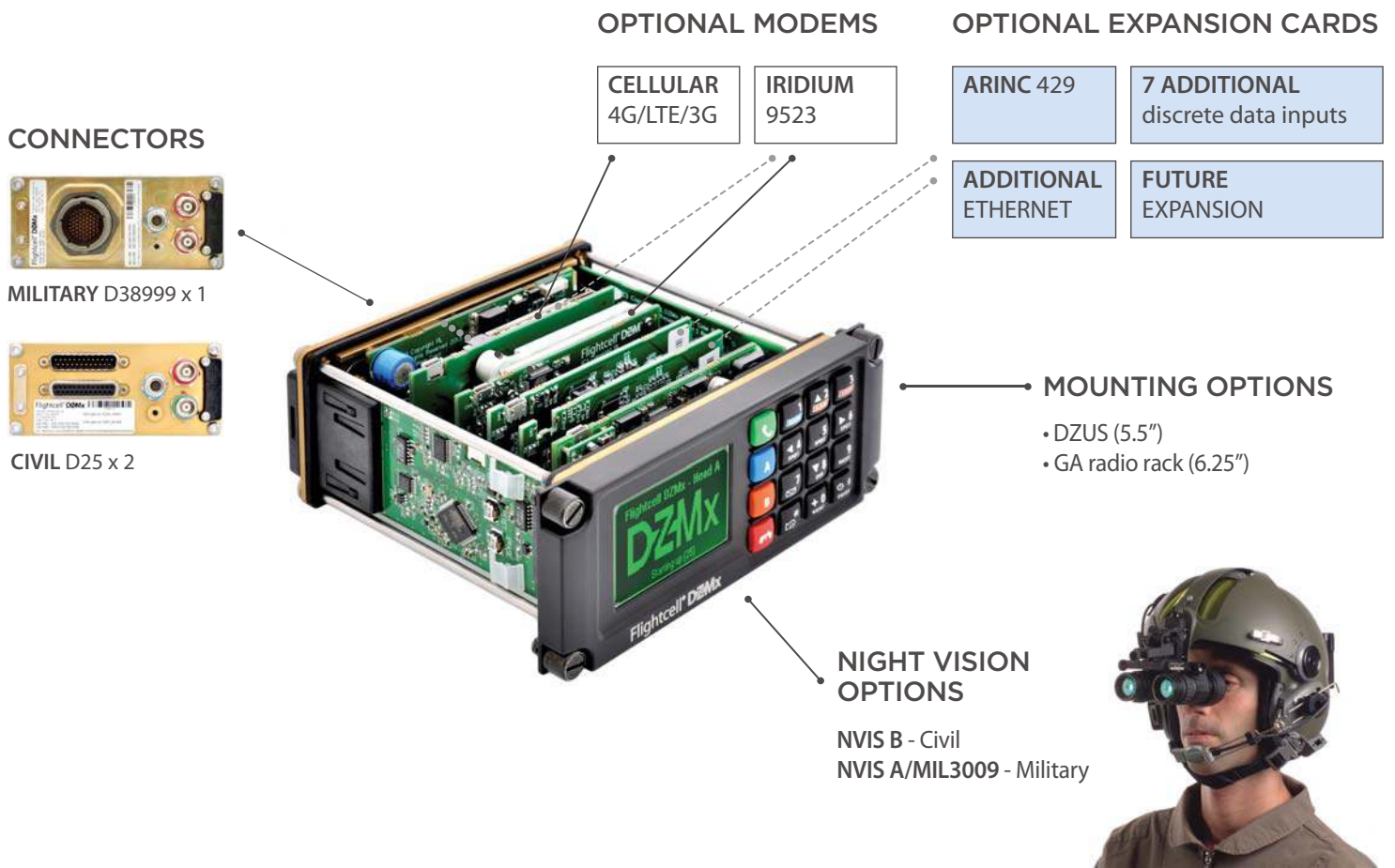| DATA INTERFACES	
Interface	**Description**
RS232	3-wire serial port
RS-485/422	4-wire serial port
USB-via D25 or D38999	DZMx is USB Host
10/100 ethernet	Ethernet port
General purpose inputs	5 (3 x digital, 2 x analogue)
General purpose outputs	2 outputs

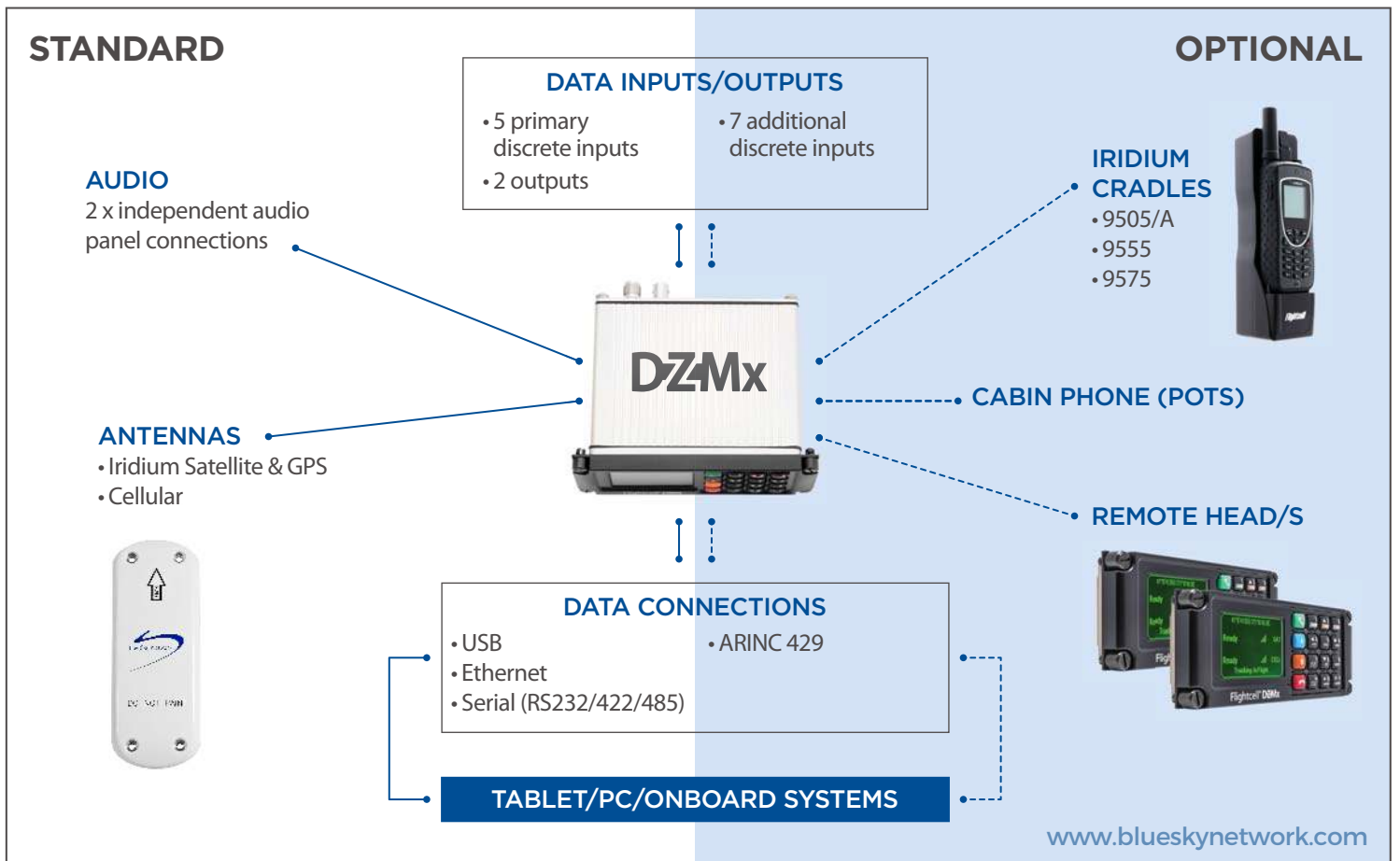| DO-160G CERTIFICATION	
Env.Cat [(A2)(B2)(F1)]BAB[UG]HXXXXXZZA[AC][SS]MXXXXXXXAC	

ENVIRONMENTAL	
Built to:	IP54 (Civ), IP65 (Mil)
Operating temperature:	-40°C to 70°C

WHAT'S INSIDE FLIGHTCELL DZMx?

CONNECTORS

MILITARY D38999 x 1

CIVIL D25 x 2

OPTIONAL MODEMS

CELLULAR 4G/LTE/3G	IRIDIUM 9523

OPTIONAL EXPANSION CARDS

ARINC 429	7 ADDITIONAL discrete data inputs
ADDITIONAL ETHERNET	FUTURE EXPANSION

MOUNTING OPTIONS

• DZUS (5.5")
• GA radio rack (6.25")

NIGHT VISION OPTIONS

NVIS B - Civil
NVIS A/MIL3009 - Military

THE DZMx SYSTEM

STANDARD

OPTIONAL

DATA INPUTS/OUTPUTS

• 5 primary discrete inputs
• 2 outputs

• 7 additional discrete inputs

AUDIO

2 x independent audio panel connections

ANTENNAS

• Iridium Satellite & GPS
• Cellular

IRIDIUM CRADLES

• 9505/A
• 9555
• 9575

CABIN PHONE (POTS)

REMOTE HEAD/S

DATA CONNECTIONS

• USB
• Ethernet
• Serial (RS232/422/485)

• ARINC 429

TABLET/PC/ONBOARD SYSTEMS

www.blueskynetwork.com

MORE FEATURES THAN EVER BEFORE

DESIGN FEATURES

DZMx is the world's only all-in-one satellite and cellular voice, data and tracking system.

All electronics are installed in one compact, panel mounted control head – nothing in the avionics bay, and minimal wiring means substantial savings on installation costs.

The world's smallest and lightest satcom.
- 4.95" (125mm) wide
- 2.18" (55mm) high
- 4.72" (120mm) deep
- 1.4lbs (650g)!

The world's toughest satcom system.
Built to MILSPEC and DO160G certified (Sections 4-8,15-21,25) Super strong machined alloy faceplate and extruded alloy housing.

Multiple transceiver options, configurable modular design.
1-2 internal transceivers offering expansion and dual mode redundancy in the event of network failures.

Multi-channel options, modular design.
- Single or dual Iridium satellite channels (int.)
- Iridium **plus** cellular (int.)
- Iridium phone in a Flightcell cradle (ext.)

Environmentally sealed for long life and low maintenance.
Designed to withstand temperature extremes, humidity, water, sand and dust.
- IP54 (Civ) • IP65 (Mil)

Easy to use, intuitive menu.
- Easy to follow menu operation
- Multi-line LCD display
- Soft touch backlit keys
- No training required.

Night vision goggle compliant.
Backlit keypad and LCD display are NVIS compliant as standard.
- NVIS A (Mil)
- NVIS B (Civil)

Accessible SIM cards.
Easy access to SIM card slots to change your satellite or cellular network providers.

Optional remote control head.
Allows full operational functionality for up to two additional work stations on the aircraft.

Easy configuration.
Use the DZM's menus or embedded web app. Configure phone, data, and tracking settings. Easy firmware upgrades via USB data stick.

GLOBAL VOICE

DZMx is the world's only all-in-one satellite and cellular phone system, providing crystal clear voice communications via Iridium satellite and cellular networks, so you're always connected.

Satellite and cellular voice calls.
Full global coverage via Iridium satellite and low cost cellular option when in range.

Crystal clear audio.
DZMx is a full digital audio system (input/output) for optimal sound quality and clarity when you need it most.

Audio optimisation.
Fully adjustable audio input and output levels to match all audio systems.

Standard phone keypad layout.
DZMx is the only satcom system that uses the standard and familiar phone keypad layout. No training required.

Iridium Push-To-Talk.
Global satellite PTT communications between multiple aircraft and ground units.

Built-in contact list with three speed dial keys.
All your contacts are accessible from the built-in contact list.
Easily manage contacts using DZMx web app.

Cabin phone options.
Optional cabin phone over POTS (2 wire) for private satellite and cellular calls.
Provides cabin to cockpit intercom

Aircraft audio connections.
DZMx provides two independent connections to the aircraft audio system

Connectivity.
Multiple data connections:
- Serial RS232/432/485
- Ethernet
- USB
- Optional ARINC429

GLOBAL DATA

DZMx connects your aircraft to the world via the Iridium satellite narrowband and cellular broadband networks.

Messaging.
Messaging via Iridium (SBD & SMS) or cellular (SMS)

Pre-configured messaging.
Quickly send pre-configured messages from your DZMx to:
- any cell or satphone
- your mapping system.

DZMx (civil) rear view showing multiple connection options.

Specialised data applications.
Transmit mission-specific data for improved aircraft management and more accurate billing.
- Fire fighting payload and drop-zone data.
- Crop dusting flight records, loads and drop data
- Airline operations
- Custom application development available.

Multiple data inputs.
5 standard switched inputs (digital or analogue).
Optional expansion card provides 7 more inputs.
Two digital outputs.

Broadband.
Full email and internet via 4G/LTE cellular data (when available).

DZMx (civil) side view.

GPS TRACKING

DZMx is the only system that offers dual network, uninterrupted GPS tracking via both satellite and cellular networks to significantly reduce your tracking costs. Now with cellular IP tracking!

IP Tracking.
New technology using a combination of cellular data & IP (Internet Protocol) technology to offer low cost position points at 15-second intervals.

Truepath™ for more precise tracking.
DZMx bundles multiple GPS positions during each transmission providing more precise mapping of the aircraft track.

Unlocked - choose your mapping service.
DZMx's unlocked data feed is supported by multiple tracking providers - you're not locked into any airtime or tracking provider.

Lower tracking costs.
Using cellular networks can significantly reduce the cost of tracking. Expect to get more for less.

Continuous tracking.
Simultaneous voice and tracking via a single channel. Send position reports even while on a phone call

Event driven tracking.
User-configurable intelligent features to provide more flight data:
- Distress reports
- Engine start/stop
- Take off/landing
- Point of interest /OOOI

ARM.
One key sends request to your tracking provider for Automated Rescue Monitoring. Get notified if tracking is unexpectedly interrupted (where supplied).

AFF compliant.
USFS and NAFC AFF compliant tracking.

Mark point of interest.
Convenient one key activation to manually mark your GPS position. Send optional pre-configured message with GPS position.

DZMx