MILTECH™ 5042

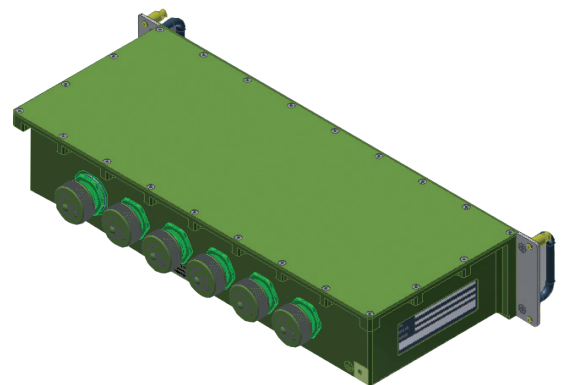## Military Rugged Communication System

FEATURES

Techaya's MILTECH™5042 Series is a MIL-STD rugged, military-grade communication system for transferring Video, Serial (RS-422), Discrete Signals, Gigabit Ethernet switch over single strand Tactical Fiber

Developed for military and harsh environment applications, the MILTECH™5042 features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed MIL-D-38999 circular connectors.

Leveraging best-in-class technology from Techaya, the MILTECH™5042 serves as a robust solution for transferring Tactical Communication signals over fiber, to provide connectivity to IP-enabled systems and net-centric devices. Compact in size, the MILTECH™5042 is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments. MILTECH™5042 is specifically designed for Data Acquisition & Transmission, Battlefield Communication C4ISR, Rugged Networks, Mobile Communications, Combat vehicles and Avionic & Shipboard Systems.

SPECIFICATIONS

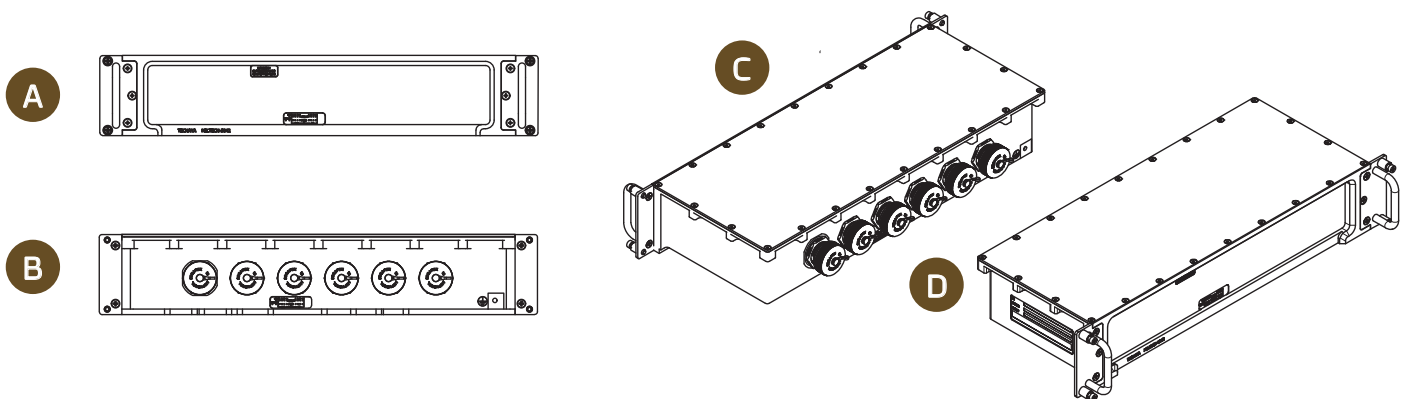|	
PORTS	• 2 x Composite video • 4x Serial data inputs RS-422 • 7 x DI (Open / GND) • 7 x DO (Open / GND) • 4 x Managed switched 10/100/1000TX ports • Fiber Optic (S.M Up to 20 Km)
NETWORKING	• Full wire-speed forwarding rate • Dedicated FPGA based • Extreme Low Latency
CONNECTORS	• MIL-D-38999 (Power & Ethernet, I/O, Discrete signals) • All Interface connectors in one side panel
CHASSIS	• Low profile rugged aluminum • Conductively cooled w/custom internal heat-sinks • Ingress protection against sand, dust and moisture • Anodize Coating, MIL-A-8625, Type II, Class 2
STANDARDS	• MILSTD-1275, MILSTD-704A, MILSTD-461E, MILSTD-810F GM, IP67
VOLTAGE OPERATION	• 24VDC (18VDC ~ 36VDC)

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PERFORMANCE	• Bi-Directional opto-isolated discretes up to 28VDC • Analog video NTSC/PAL/RS170 • Serial Interfaces RS-422 up to 20Mbps per interface • Fully Managed SNMP/CLI Gigabit Ethernet switch • Low Latency of below 1ms • Interfaces Activity LED dual side indication panel • LED Test DI • CBIT DO Indication
POWER (Design to)	• MIL-STD-1275B & MIL-STD 704A Surge and Spike protection • Voltage Input: 24Vdc Nominal (18-36V) • Power Consumption: 20W Typical • Chassis grounding
ELECTROMAGNETIC (Design to)	• MIL-STD-461E Electromagnetic compatibility • CE-102, CS-114, CS-115, CS-116, RE-102, RS-103
SHOCK/ VIBRATION/ HUMIDITY (Design to)	• MIL-STD-810F, 501.4I, 501.4II, 502.4I, 502.4II, 507.4, 500.4II, 514, 516I, 516Vi, 514.5, 512.4. • IP67
TESTING PROCEDURE	• HASS (According to Client Definitions)
PHYSICAL	• Dimensions: 440mm (L) x 200(D) x 88(H), 19", 2U • Weight: 4.5kg
INSTALLATION	• Set of Four 4x10-32 captive screws for 19" cabinet mounting or holes on bottom for mounting to any flat surface. • Carrying handles.
COOLING	• No Moving Parts. Passive Cooling
STORAGE TEMP	• -45⁰C to +85⁰C (-49⁰F to +185⁰F)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
MILTECH5042T	• MILTECH™5042 MIL-STD Rugged Transmitter system over tactical fiber
MILTECH5042R	• MILTECH™5042 MIL-STD Rugged Receiver system over tactical fiber
MIL5042-HND	• Carrying Handles Kit for MILTECH™5042