



M3433 GROUND DATA TERMINAL (GDT) GATEWAY

Enabling enhanced power and multi-protocol connectivity

The M3433 series is a versatile power supply integrated with a comprehensive network system. It combines a managed Ethernet switch with 8 x 10/100/1000 ports, a Cisco ESR6300 router, MCU, and various serial interfaces (RS232, RS422/485). With multiple protocols and interfaces consolidated into a single connector per End User Device (EUD), this innovative product streamlines system solutions, minimizing volume, weight, and costs. Designed for use in airborne, ground, and navy applications, the M3433 series offers a unified solution that meets diverse operational requirements.

By combining power and communication interfaces into a single device, it optimizes volume and cost efficiency. With features such as fiber optic interfaces through tactical Expanded beam connectors, wide temperature range, flexible mechanical configurations, and cooling methods, it ensures reliable performance in challenging environments. Experience control and monitoring capabilities through the dedicated service interface, while meeting stringent military standards.





SPECIFICATIONS

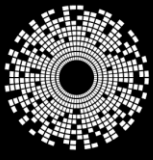
<p>INTERFACES:</p>	<ul style="list-style-type: none"> • J1 – AC IN, 85-265VAC/50-400Hz • J2 – DC IN 22-30VDC • J3 – 1x10/100BaseT DC OUT, 28V@100W • J4 – 1x10/100/1000BaseT DC OUT, 16V@80W • J5 – 1x10/100/1000BaseT DC OUT, 28V@100W 2x 1PPS RS422 output • J6 – 2x10/100/1000BaseT Router management: RS232, USB2 MCU management: RS232 OPEN/GND Reset Input DC OUT, 28V@280W • J7 – 2x1000BaseFX, SM 1 x 1PPS Output • J8 – 2x1000BaseFX, SM • J9 – 2x1000BaseFX, SM • J10 – 1 x 1PPS Output RS422 1 x 1PPS over fiber, MM
<p>POWER</p>	<ul style="list-style-type: none"> • (EMI filter include) with automatic change over mechanism • High power factor & Inrush current limit • Remote inhibit, Over Voltage & current protection (overload, short) and current, voltage sensing • Well-regulated, Low ripple and noise
<p>NETWORKING: MCU:</p>	<ul style="list-style-type: none"> • Internal MCU to enable BIT/CBIT/ IBIT, power output sensing (Current and Voltage) with enable/disable capabilities for each output • 32-bit Arm Cortex-M7 • 2 Mbytes of Flash memory with read-while write support • 512Mb SDRAM
<p>NETWORKING: Ethernet Switch:</p>	<ul style="list-style-type: none"> • Fully managed 8 x 10/100/1000BaseT • 16K – entry MAC address table • 1K multicast group support • 4K VLANs with Virtual Switching Instance support, VLAN translation • IEEE 802.1q, MAC, DSCP packet classification • Mirroring and sFlow sampling • Loop detection • Port authentication, isolation groups, DoS filtering, IGMP snooping, • IEEE 1588v2, SyncE, IEEE 802.Qbv, IEEE 801.Asrev • Jumbo frame support • Switch Cascading
<p>NETWORKING: CISCO Router(ESR6300) Security:</p>	<ul style="list-style-type: none"> • Trust Anchor module • Secure Boot and runtime defenses • VPN • NGE and QCR • IPsec • CoPP
<p>NETWORKING: CISCO Router(ESR6300) Routing:</p>	<ul style="list-style-type: none"> • RIPv1/RIPv2 • GRE/ MGRE • OSPFv2/OSPFv3 • BGP • EIGRP • VRF • NHRP



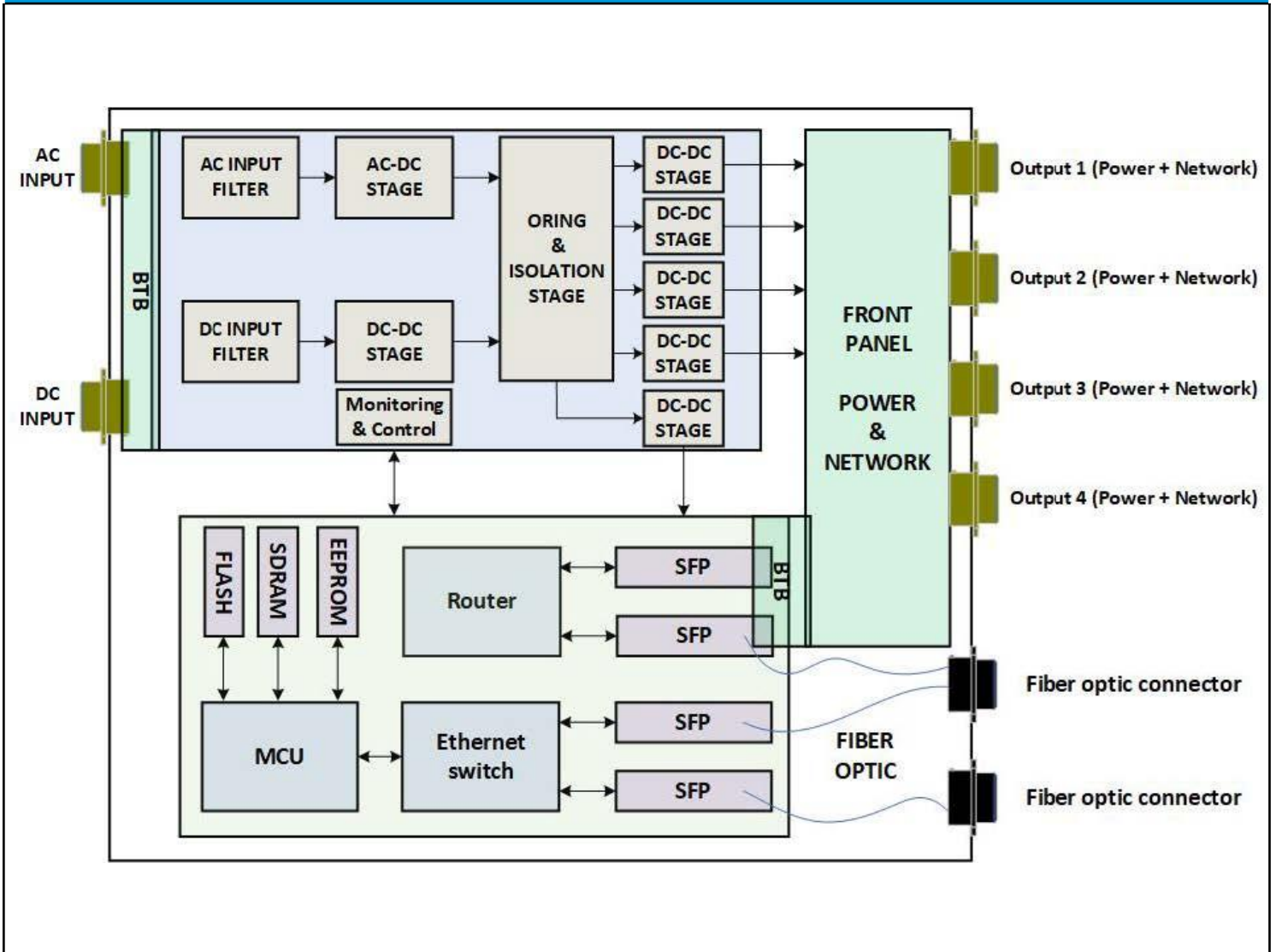
SPECIFICATIONS

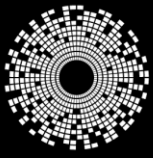
<p>NETWORKING: CISCO Router(ESR6300) Switching:</p>	<ul style="list-style-type: none"> • Layer 2 Tunneling Protocol (L2TP) • DNS proxy • DHCP • STP/RSTP/MSTP/PVST • NAT • VLAN
<p>NETWORKING: CISCO Router(ESR6300) QoS:</p>	<ul style="list-style-type: none"> • LLQ, WFQ, CBWFQ • Traffic Shaping CBTS • Traffic Policing CBTP • PBR • QoS MIB • CoS, DSCP • CBWRED • RSVP • RTP, cRTP • DiffServ • HQoS
<p>CONNECTORS:</p>	<ul style="list-style-type: none"> • J1: D38999/24WC4PN • J2: D38999/24WE4PN • J3: D38999/24WC35SN • J4: D38999/24WD18SN • J5: D38999/24WD19SN • J6: D38999/24WC35SN • J7: D38999/24WA35PN • J8: TACBEAM 220628AG-035 • J9: TACBEAM 20210804050B-01 • J10: TACBEAM 220628AG-001
<p>CHASSIS:</p>	<ul style="list-style-type: none"> • Rugged machined aluminum • Conductively cooled w/custom internal heat-sinks • Ingress protection against sand, dust and moisture • Chromate Conversion Coating, MIL -DTL-5541, Type I, Class 1A
<p>STANDARDS:</p>	<ul style="list-style-type: none"> • Tested for: MIL-STD-810H, 501.7-I,II, 502.7-I-II, 500.6-I, 503.7-I, 507.6-II, 505.7-I,II, 506.6-I, 510.7-I,II, 509.7, 514.8-I, 516.8-I,IV,VI, IEC 60529, IP67
<p>ELECTROMAGNETIC:</p>	<ul style="list-style-type: none"> • Tested for: CE-102, CS101, CS114, CS115, CS116, CS118, RE102, RE103
<p>PHYSICAL:</p>	<ul style="list-style-type: none"> • Dimensions: 481.4mm (L) x 433.46mm (W) x197.5mm(H), including connectors & handles • Dimensions: 18.94" (L) x 17.06" (W) x 7.77" (H)), including connectors & hardware • Weight: 15Kg • IP67
<p>COOLING:</p>	<ul style="list-style-type: none"> • No Moving Parts. Minimum Air Velocity 5KPH (All Directions)
<p>OPERATING TEMP:</p>	<ul style="list-style-type: none"> • -45°C to +85°C (-49°F to +185°F) Cold Start-Up
<p>STORAGE TEMP:</p>	<ul style="list-style-type: none"> • -45°C to +85°C (-49°F to +185°F)



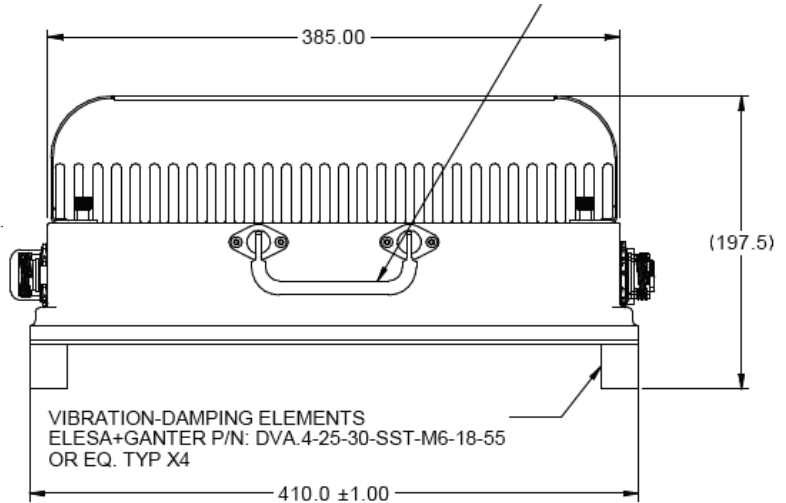
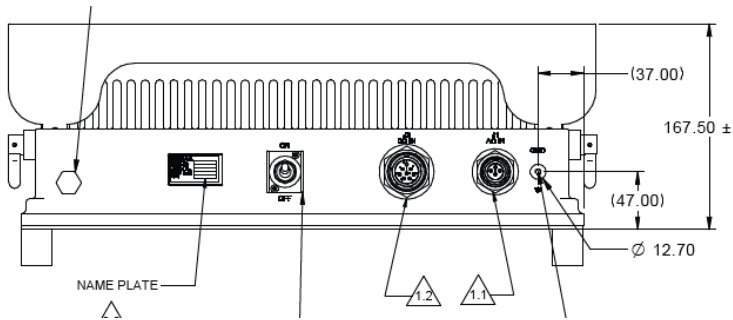
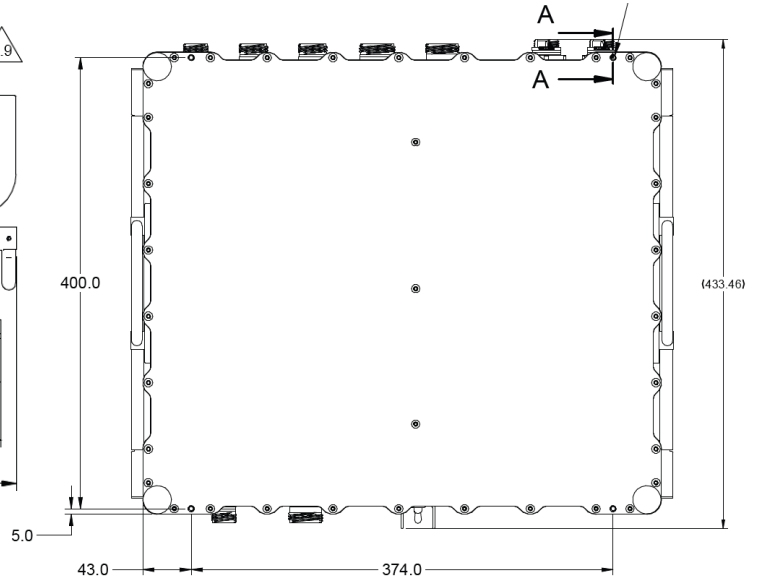
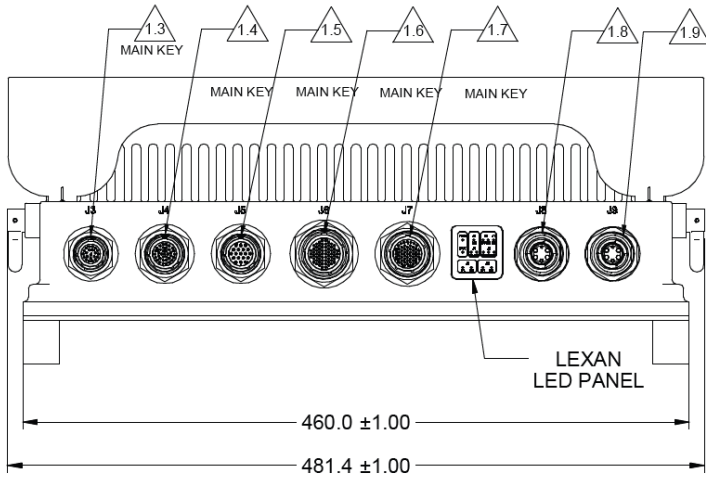


Block Diagram





Mechanical ICD



ORDERING INFORMATION

PART NUMBER	DESCRIPTION
3433-1	GDT Gateway is a 4 isolated outputs power supply combined with network system Military Grade Gigabit Ethernet Switch, 8 x 10/100/1000BT ports, Cisco ESR6300 router, MCU, and Serial interfaces (RS232, RS422/485)