

# Raptor Go 1G/10G Ethernet Switches

TSN/MACSec 1G/10GBase-T Enabled

PDS - 459



## Next Generation Ethernet Switch Units

Amphenol's next-generation RaptorGo TSN/MACSec Enabled 1G/10GBase-T Ethernet, standalone switches operate with 34-36 individual channels, supporting speeds of up to 1GBase-T and 10GBase-T.

Management is handled by on-board quad-core ARM processors, each with ample memory for complex networking applications.

Several versions of the RaptorGo switch are available which have different quantities of the 10GBase-T (six and eight) compatible ports while each of the units has 28 channels of up to 1GBase-T.



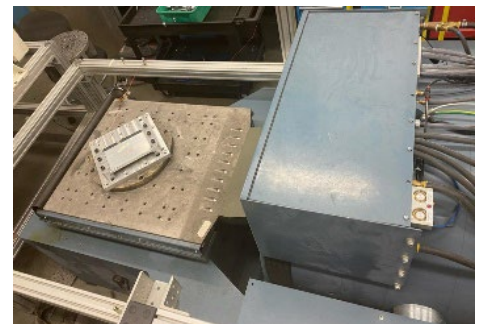
## FEATURES

- 34-36 channel standalone Ethernet switch
  - 6 channels 10GBase-T; 28 channels 1GBase-T
  - 8 channels 10GBase-T; 28 channels 1GBase-T
- Support for multiple speeds: 10/100/1G/2.5G/5G/10GBase-T
- Layer 2 and Layer 3 network management capabilities, including support for time-sensitive networking (TSN), MACsec, and advanced routing applications
- Dedicated management interfaces via dual RS-232 and 1GBase-T
- Powered by dual quad-core ARM CPUs with DDR4-SDRAM, flash memory, and EEPROM.
- Linux OS with comprehensive network management software.



## RUGGEDIZATION

- Fully ruggedized to withstand extreme environmental and EMI/EMP conditions.
- Interfaces for power diagnostics and more.
- Meets the following environmental specifications:
  - Operating Temperature: -40°C to 85°C while operating.
  - Storage Temperature: -55°C to 125°C.
  - Humidity: 0-100% non-condensing humidity during operation.
  - Vibration: 10g peak, 5-2,000 Hz sine vibration, and 40 G peak shock cycles.
  - Altitude: -1,500 to 60,000 ft with rapid depressurization.
  - EMC: Designed to comply with MIL-STD-461E.



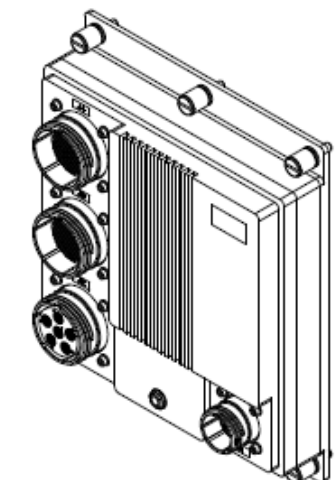
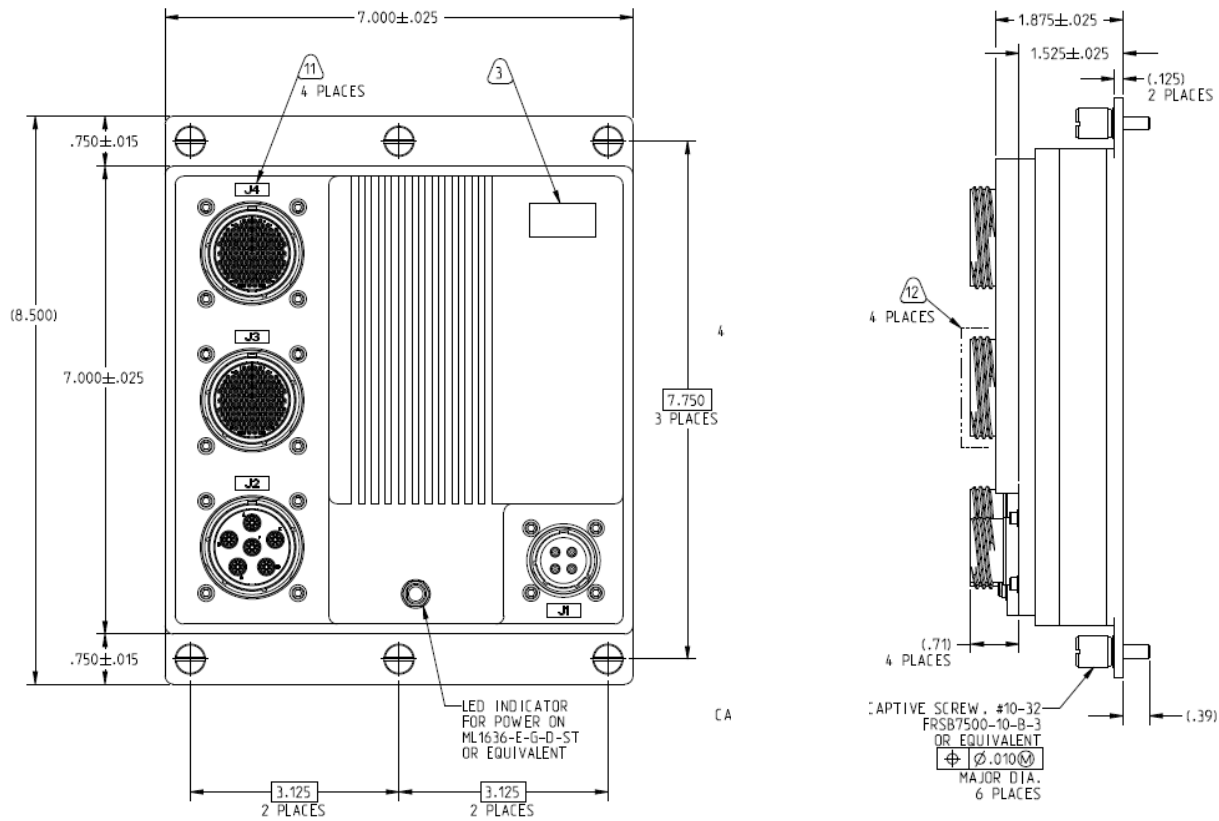
## ORDERING INFORMATION

### PART NUMBER TABLE

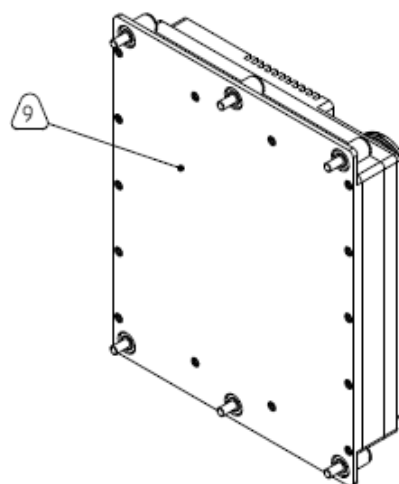
CF-02WA00-29X	6 channels 10GBase-T; 28 channels 1GBase-T	Managed	75 Watts	~60 second boot
CF-02WA00-30X	8 channels 10GBase-T; 28 channels 1GBase-T	Managed	65 Watts	~60 second boot

## DIMENSIONS & I/O

CF-02WA00-29X



FRONT ISOMETRIC VIEW  
SCALE 0.500



REAR ISOMETRIC VIEW  
SCALE 0.500

## DIMENSIONS & I/O

CF-02WA00-29X

I/O CHART			
CONNECTOR	PIN ID	DATA DIRECTION	SIGNAL NAME
J1 POWER 15-4P	A	IN	28VDC_IN
	B	OUT	28VDC_RTN
	C	--	SAFETY GROUND CHASSIS
	D	--	NOT CONNECTED
	SHELL	--	CHASSIS

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J2 10GBASE-T 23-6S	A-1	BI	1	10GBase-T_DA+
	A-2			10GBase-T_DA-
	A-3			10GBase-T_DB+
	A-4			10GBase-T_DB-
	A-5			10GBase-T_DC+
	A-6			10GBase-T_DC-
	A-7			10GBase-T_DD+
	A-8			10GBase-T_DD-
	A-OUTER	--	--	CHASSIS GND
	A-CENTER	--	--	CHASSIS GND
	B-1	BI	2	10GBase-T_DA+
	B-2			10GBase-T_DA-
	B-3			10GBase-T_DB+
	B-4			10GBase-T_DB-
	B-5			10GBase-T_DC+
	B-6			10GBase-T_DC-
	B-7			10GBase-T_DD+
	B-8			10GBase-T_DD-
	B-OUTER	--	--	CHASSIS GND
	B-CENTER	--	--	CHASSIS GND
	C-1	BI	3	10GBase-T_DA+
	C-2			10GBase-T_DA-
	C-3			10GBase-T_DB+
	C-4			10GBase-T_DB-
	C-5			10GBase-T_DC+
	C-6			10GBase-T_DC-
	C-7			10GBase-T_DD+
	C-8			10GBase-T_DD-
	C-OUTER	--	--	CHASSIS GND
	C-CENTER	--	--	CHASSIS GND

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J2 10GBASE-T 23-6S	D-1	BI	4	10GBase-T_DA+
	D-2			10GBase-T_DA-
	D-3			10GBase-T_DB+
	D-4			10GBase-T_DB-
	D-5			10GBase-T_DC+
	D-6			10GBase-T_DC-
	D-7			10GBase-T_DD+
	D-8			10GBase-T_DD-
	D-OUTER	--	--	CHASSIS GND
	D-CENTER	--	--	CHASSIS GND
	E-1	BI	5	10GBase-T_DA+
	E-2			10GBase-T_DA-
	E-3			10GBase-T_DB+
	E-4			10GBase-T_DB-
	E-5			10GBase-T_DC+
	E-6			10GBase-T_DC-
	E-7			10GBase-T_DD+
	E-8			10GBase-T_DD-
	E-OUTER	--	--	CHASSIS GND
	E-CENTER	--	--	CHASSIS GND
	F-1	BI	6	10GBase-T_DA+
	F-2			10GBase-T_DA-
	F-3			10GBase-T_DB+
	F-4			10GBase-T_DB-
	F-5			10GBase-T_DC+
	F-6			10GBase-T_DC-
	F-7			10GBase-T_DD+
	F-8			10GBase-T_DD-
	F-OUTER	--	--	CHASSIS GND
	F-CENTER	--	--	CHASSIS GND

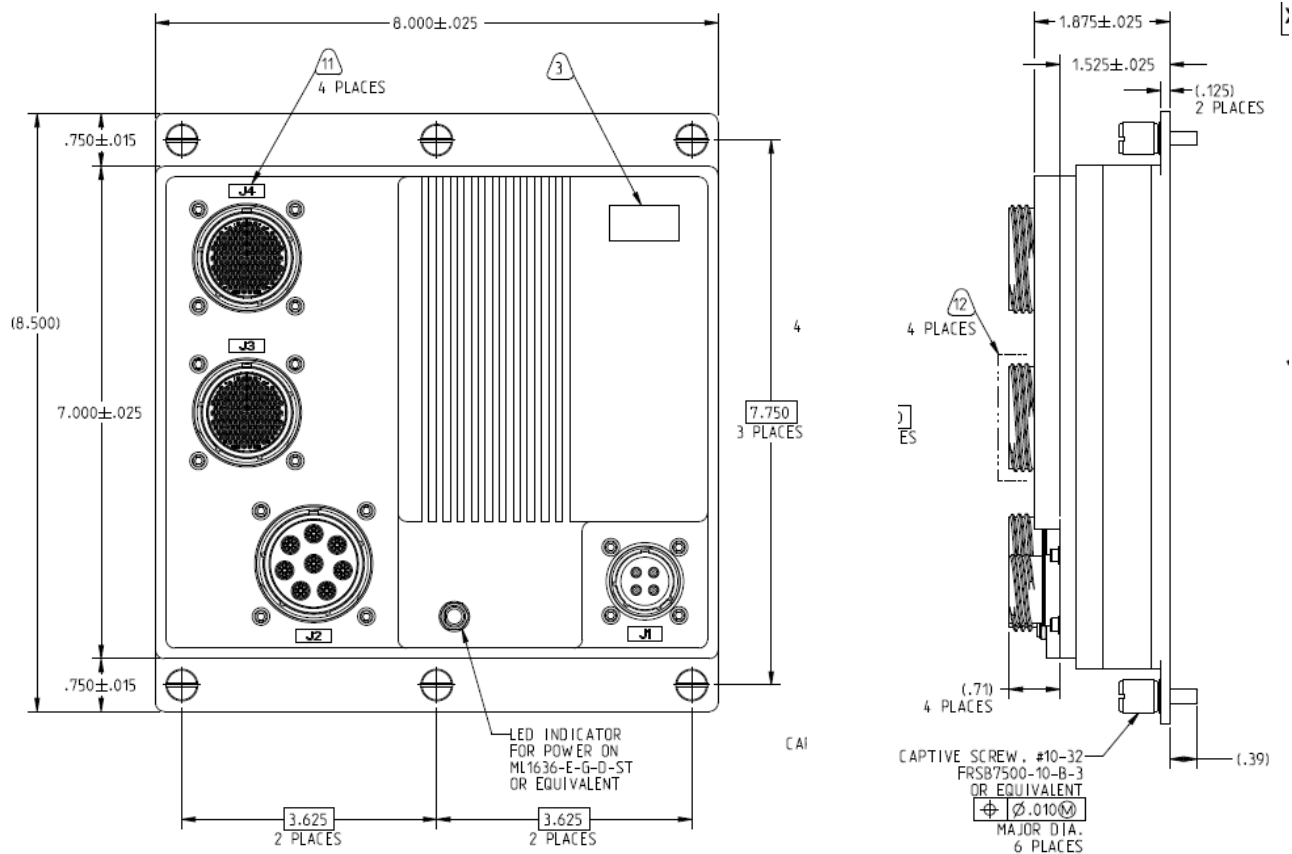
I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J4 10Base-T 23-15IP	1	BI	21	1GBase-T_DA+
	2			1GBase-T_DA-
	6			1GBase-T_DB+
	7			1GBase-T_DB-
	13			1GBase-T_DC+
	14			1GBase-T_DC-
	15			1GBase-T_DD+
	16			1GBase-T_DD-
	3	BI	22	1GBase-T_DA+
	4			1GBase-T_DA-
	9			1GBase-T_DB+
	10			1GBase-T_DB-
	17			1GBase-T_DC+
	18			1GBase-T_DC-
	19			1GBase-T_DD+
	20			1GBase-T_DD-
	23	BI	23	1GBase-T_DA+
	24			1GBase-T_DA-
	25			1GBase-T_DB+
	26			1GBase-T_DB-
	34			1GBase-T_DC+
	35			1GBase-T_DC-
	36			1GBase-T_DD+
	37			1GBase-T_DD-
	28	BI	24	1GBase-T_DA+
	29			1GBase-T_DA-
	30			1GBase-T_DB+
	31			1GBase-T_DB-
	40			1GBase-T_DC+
	41			1GBase-T_DC-
	42			1GBase-T_DD+
	43			1GBase-T_DD-
	ALL OTHER PINS	--	--	NO CONNECT

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J4 10Base-T 23-15IP	45	BI	25	1GBase-T_DA+
	46			1GBase-T_DA-
	47			1GBase-T_DB+
	48			1GBase-T_DB-
	58			1GBase-T_DC+
	59			1GBase-T_DC-
	60			1GBase-T_DD+
	61			1GBase-T_DD-
	49	BI	26	1GBase-T_DA+
	50			1GBase-T_DA-
	52			1GBase-T_DB+
	53			1GBase-T_DB-
	62			1GBase-T_DC+
	63			1GBase-T_DC-
	64			1GBase-T_DD+
	65			1GBase-T_DD-
	54	BI	27	1GBase-T_DA+
	55			1GBase-T_DA-
	56			1GBase-T_DB+
	57			1GBase-T_DB-
	66			1GBase-T_DC+
	67			1GBase-T_DC-
	68			1GBase-T_DD+
	69			1GBase-T_DD-
	83	BI	28	1GBase-T_DA+
	84			1GBase-T_DA-
	85			1GBase-T_DB+
	86			1GBase-T_DB-
	95			1GBase-T_DC+
	96			1GBase-T_DC-
	97			1GBase-T_DD+
	98			1GBase-T_DD-
	87	BI	29	1GBase-T_DA+
	88			1GBase-T_DA-
	89			1GBase-T_DB+
	90			1GBase-T_DB-
	99			1GBase-T_DC+
	100			1GBase-T_DC-
	102			1GBase-T_DD+
	103			1GBase-T_DD-

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J4 10Base-T 23-15IP	91	BI	30	1GBase-T_DA+
	92			1GBase-T_DA-
	93			1GBase-T_DB+
	94			1GBase-T_DB-
	104			1GBase-T_DC+
	105			1GBase-T_DC-
	106			1GBase-T_DD+
	107			1GBase-T_DD-
	109	BI	31	1GBase-T_DA+
	110			1GBase-T_DA-
	111			1GBase-T_DB+
	112			1GBase-T_DB-
	121			1GBase-T_DC+
	122			1GBase-T_DC-
	123			1GBase-T_DD+
	124			1GBase-T_DD-
	115	BI	32	1GBase-T_DA+
	116			1GBase-T_DA-
	117			1GBase-T_DB+
	118			1GBase-T_DB-
	126			1GBase-T_DC+
	127			1GBase-T_DC-
	128			1GBase-T_DD+
	129			1GBase-T_DD-
	132	BI	33	1GBase-T_DA+
	133			1GBase-T_DA-
	134			1GBase-T_DB+
	135			1GBase-T_DB-
	142			1GBase-T_DC+
	143			1GBase-T_DC-
	148			1GBase-T_DD+
	149			1GBase-T_DD-
	136	BI	34	1GBase-T_DA+
	137			1GBase-T_DA-
	138			1GBase-T_DB+
	139			1GBase-T_DB-
	145			1GBase-T_DC+
	146			1GBase-T_DC-
	150			1GBase-T_DD+
	151			1GBase-T_DD-

## DIMENSIONS & I/O

CF-02WA00-30X



FRONT ISOMETRIC VIEW  
SCALE 0.500

REAR ISOMETRIC VIEW  
SCALE 0.500



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	B	OUT	28VDC_RTN
	C	--	SAFETY GROUND CHASSIS
	D	--	NOT CONNECTED
	SHELL	--	CHASSIS

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J2 10GBASE-T 25-8S	A-1	BI	1	10GBase-T_DA+
	A-2			10GBase-T_DA-
	A-3			10GBase-T_DB+
	A-4			10GBase-T_DB-
	A-5			10GBase-T_DC+
	A-6			10GBase-T_DC-
	A-7			10GBase-T_DD+
	A-8			10GBase-T_DD-
	A-OUTER	--	--	CHASSIS GND
	A-CENTER	--	--	CHASSIS GND
	B-1	BI	2	10GBase-T_DA+
	B-2			10GBase-T_DA-
	B-3			10GBase-T_DB+
	B-4			10GBase-T_DB-
	B-5			10GBase-T_DC+
	B-6			10GBase-T_DC-
	B-7			10GBase-T_DD+
	B-8			10GBase-T_DD-
	B-OUTER	--	--	CHASSIS GND
	B-CENTER	--	--	CHASSIS GND
	C-1	BI	3	10GBase-T_DA+
	C-2			10GBase-T_DA-
	C-3			10GBase-T_DB+
	C-4			10GBase-T_DB-
	C-5			10GBase-T_DC+
	C-6			10GBase-T_DC-
	C-7			10GBase-T_DD+
	C-8			10GBase-T_DD-
	C-OUTER	--	--	CHASSIS GND
	C-CENTER	--	--	CHASSIS GND
	D-1	BI	4	10GBase-T_DA+
	D-2			10GBase-T_DA-
	D-3			10GBase-T_DB+
	D-4			10GBase-T_DB-
	D-5			10GBase-T_DC+
	D-6			10GBase-T_DC-
	D-7			10GBase-T_DD+
	D-8			10GBase-T_DD-
	D-OUTER	--	--	CHASSIS GND
	D-CENTER	--	--	CHASSIS GND

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J2 10GBASE-T 25-8S	E-1	BI	5	10GBase-T_DA+
	E-2			10GBase-T_DA-
	E-3			10GBase-T_DB+
	E-4			10GBase-T_DB-
	E-5			10GBase-T_DC+
	E-6			10GBase-T_DC-
	E-7			10GBase-T_DD+
	E-8			10GBase-T_DD-
	E-OUTER	--	--	CHASSIS GND
	E-CENTER	--	--	CHASSIS GND
	F-1	BI	6	10GBase-T_DA+
	F-2			10GBase-T_DA-
	F-3			10GBase-T_DB+
	F-4			10GBase-T_DB-
	F-5			10GBase-T_DC+
	F-6			10GBase-T_DC-
	F-7			10GBase-T_DD+
	F-8			10GBase-T_DD-
	F-OUTER	--	--	CHASSIS GND
	F-CENTER	--	--	CHASSIS GND
	G-1	BI	7	10GBase-T_DA+
	G-2			10GBase-T_DA-
	G-3			10GBase-T_DB+
	G-4			10GBase-T_DB-
	G-5			10GBase-T_DC+
	G-6			10GBase-T_DC-
	G-7			10GBase-T_DD+
	G-8			10GBase-T_DD-
	G-OUTER	--	--	CHASSIS GND
	G-CENTER	--	--	CHASSIS GND
	H-1	BI	8	10GBase-T_DA+
	H-2			10GBase-T_DA-
	H-3			10GBase-T_DB+
	H-4			10GBase-T_DB-
	H-5			10GBase-T_DC+
	H-6			10GBase-T_DC-
	H-7			10GBase-T_DD+
	H-8			10GBase-T_DD-
	H-OUTER	--	--	CHASSIS GND
	H-CENTER	--	--	CHASSIS GND

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J3 10GBase-T 23-15P	1	BI	9	10GBase-T_DA+
	2			10GBase-T_DA-
	6			10GBase-T_DB+
	7			10GBase-T_DB-
	13			10GBase-T_DC+
	14			10GBase-T_DC-
	15			10GBase-T_DD+
	16			10GBase-T_DD-
	3	BI	10	10GBase-T_DA+
	4			10GBase-T_DA-
	9			10GBase-T_DB+
	10			10GBase-T_DB-
	17			10GBase-T_DC+
	18			10GBase-T_DC-
	19			10GBase-T_DD+
	20			10GBase-T_DD-
	23	BI	11	10GBase-T_DA+
	24			10GBase-T_DA-
	25			10GBase-T_DB+
	26			10GBase-T_DB-
	34			10GBase-T_DC+
	35			10GBase-T_DC-
	36			10GBase-T_DD+
	37			10GBase-T_DD-
	28	BI	12	10GBase-T_DA+
	29			10GBase-T_DA-
	30			10GBase-T_DB+
	31			10GBase-T_DB-
	40			10GBase-T_DC+
	41			10GBase-T_DC-
	42			10GBase-T_DD+
	43			10GBase-T_DD-
	ALL OTHER PINS	--	--	NO CONNECT

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J3 10GBase-T 23-15P	45	BI	13	10GBase-T_DA+
	46			10GBase-T_DA-
	47			10GBase-T_DB+
	48			10GBase-T_DB-
	58			10GBase-T_DC+
	59			10GBase-T_DC-
	60			10GBase-T_DD+
	61			10GBase-T_DD-
	49	BI	14	10GBase-T_DA+
	50			10GBase-T_DA-
	52			10GBase-T_DB+
	53			10GBase-T_DB-
	62			10GBase-T_DC+
	63			10GBase-T_DC-
	64			10GBase-T_DD+
	65			10GBase-T_DD-
	54	BI	15	10GBase-T_DA+
	55			10GBase-T_DA-
	56			10GBase-T_DB+
	57			10GBase-T_DB-
	66			10GBase-T_DC+
	67			10GBase-T_DC-
	68			10GBase-T_DD+
	69			10GBase-T_DD-
	83	BI	16	10GBase-T_DA+
	84			10GBase-T_DA-
	85			10GBase-T_DB+
	86			10GBase-T_DB-
	95			10GBase-T_DC+
	96			10GBase-T_DC-
	97			10GBase-T_DD+
	98			10GBase-T_DD-
	87	BI	17	10GBase-T_DA+
	88			10GBase-T_DA-
	89			10GBase-T_DB+
	90			10GBase-T_DB-
	99			10GBase-T_DC+
	100			10GBase-T_DC-
	102			10GBase-T_DD+
	103			10GBase-T_DD-

I/O CHART				
CONNECTOR	PIN ID	DATA DIRECTION	PORT NO	SIGNAL NAME
J3 10GBase-T 23-15P	91	BI	18	10GBase-T_DA+
	92			10GBase-T_DA-
	93			10GBase-T_DB+
	94			10GBase-T_DB-
	104			10GBase-T_DC+
	105			10GBase-T_DC-
	106			10GBase-T_DD+
	107			10GBase-T_DD-
	109	BI	19	10GBase-T_DA+
	110			10GBase-T_DA-
	111			10GBase-T_DB+
	112			10GBase-T_DB-
	121			10GBase-T_DC+
	122			10GBase-T_DC-
	123			10GBase-T_DD+
	124			10GBase-T_DD-
	115	BI	20	10GBase-T_DA+
	116			10GBase-T_DA-
	117			10GBase-T_DB+
	118			10GBase-T_DB-
	126			10GBase-T_DC+
	127			10GBase-T_DC-
	128			10GBase-T_DD+
	129			10GBase-T_DD-
	132	BI	21	10GBase-T_DA+
	133			10GBase-T_DA-
	134			10GBase-T_DB+
	135			10GBase-T_DB-
	142			10GBase-T_DC+
	143			10GBase-T_DC-
	148			10GBase-T_DD+
	149			10GBase-T_DD-
	136	BI	22	10GBase-T_DA+
	137			10GBase-T_DA-
	138			10GBase-T_DB+
	139			10GBase-T_DB-
	145			10GBase-T_DC+
	146			10GBase-T_DC-
	150			10GBase-T_DD+
	151			10GBase-T_DD-

## QUALIFICATION STANDARDS

Parameter	Detail	Requirement	Test Method
Low Pressure (Altitude)	Storage	Sea level to 50,000 ft @ -57°C	MIL-STD-810G Method 500.5 Procedure I
	Operational	Sea level to 40,000 ft @ -54°C	MIL-STD-810G Method 500.5 Procedure II
	Explosive Decompression	8,000 ft to 23,100 feet in 8ms	MIL-STD-810G Method 500.5 Procedure IV
High Temperature extremes	Storage, cyclic	+95°C	MIL-STD-810G Method 501.5 Procedure I
	Operational, cyclic	+55°C	MIL-STD-810G Method 501.5 Procedure II
	Operational, constant	+71°C for 30 Minutes	MIL-STD-810G Method 501.5 Procedure II
Low Temperature extremes	Storage, cyclic	-57°C	MIL-STD-810G Method 502.5 Procedure I
	Operational, cyclic	-40°C	MIL-STD-810G Method 502.5 Procedure II
	Operational, sea level, constant	-65°C for 120 Minutes	MIL-STD-810G Method 502.5 Procedure II, as per F-16
Temperature	Shock, from constant	-54°C to +71°C at 125°C/Minute	MIL-STD-810G Method 503.5 Procedure I-B
Combined temperature-altitude-humidity	Operational, 10 cycles	-40°C to +71°C, Sea level to 60,000 ft	MIL-STD-810G Method 520.3 Procedure III
Humidity	Operational and Non-Operational, aggravated cycle	95% ± 4% Humidity, +30°C to +60°C, 10 cycles	MIL-STD-810F Method 507.5 Procedure II
Sand and Dust	Operational and Non-Operational, blowing	< 150um dust, 150um to 850um sand	MIL-STD-810G Method 510.5 Procedure I (Dust) Procedure II (Sand)
Rain	Operational, Dripping	7 gal/ft <sup>2</sup> /hr, 40 mph for 30 minutes	MIL-STD-810G Method 506.5 Procedure III
Fungus	Non-Operational	7-day growth	MIL-STD-810G Method 508.6
Salt Fog	Operational and Non-Operational, exposure	Four 24-hour wet/dry cycles	MIL-STD-810G Method 509.5
Explosive Atmosphere	Operational	At site and 40,000 ft altitudes	MIL-STD-810G Method 511.5 Procedure I
Acceleration, structural	Limit Loads	Performance at ±10.0g applied individually along all 3 axes	MIL-STD-810G Method 513.6 Procedure I

## QUALIFICATION STANDARDS CONT.

	Ultimate Loads	Withstand without structural failure $\pm 15.0g$ applied individually along all 3 axes	MIL-STD-810F Method 513.6 Procedure II
	Crash Landing	Remain captive, 40g fore, 20g aft and down, 10g up, 18g left and right	MIL-STD-810F Method 513.6 Procedure III
Shock – Functional	Operational	20g, 11ms nominal, 3 blows each direction, each axis (18 total), terminal peak sawtooth	MIL-STD-810G Method 516.6 Procedure I
Shock – Crash Hazard	Non-Operational	40g, 11ms nominal, 2 blows each direction, each axis (12 total)	MIL-STD-810G Method 516.6, Procedure V
Shock – Bench Handling	Non-Operational	4" drop, 1 drop per edge per face (24 total)	MIL-STD-810G Method 516.6, Procedure VI
Vibration	Operational, Performance, Jet aircraft	30 mins, 0.02 g <sup>2</sup> /Hz to 0.04 g <sup>2</sup> /Hz, 15 - 2000 Hz, Overall 4.4Grms	MIL-STD-810G Method 514.6, Procedure I, Category 12, Annex D, Fig 514.6D-I
	Non-Operational, Endurance, Jet aircraft	60 mins, 0.04 g <sup>2</sup> /Hz to 0.06 g <sup>2</sup> /Hz, 15 - 2000 Hz, Overall 9.2Grms	MIL-STD-810G Method 514.6, Procedure I, Category 12, Annex D, Fig 514.6D-I
	Operational, Gunfire Shock	7.5 min sweeps, 5 to 15 g, 66 to 856 Hz	MIL-STD-810G Method 519.6, Procedure III
	Operational, UH-60 Main Rotor speeds and blade numbers	4 hours, 0.001g <sup>2</sup> /Hz to 0.01g <sup>2</sup> /Hz, 3 to 500 Hz	MIL-STD-810G Method 514.6, Procedure I, Category 14, Annex A & Annex D, Table 514.6D-III
Acoustic Noise	Operational	30 mins, 140 dB overall, 50 to 10000 Hz	MIL-STD-810G Method 515.6 Procedure I
Conducted Emissions	Operational	Power Leads, 30 Hz to 10 kHz	MIL-STD-461G CE101 Par 5.4, CE101-4 Curve #2
	Operational	Power Leads, 10 kHz to 10MHz	MIL-STD-461G CE102 Par 5.5, Fig CE102-1 Basic Curve
Conducted Susceptibility	Operational	Power leads, 30Hz to 150 kHz	MIL-STD-461G CS101 Par 5.7, Fig CS101-1 Curve #2
	Operational	Bulk cable injection, 10 kHz to 200MHz	MIL-STD-461G CS114 Par 5.12, Fig CS114-1 Curve #5
	Operational	Bulk cable injection, impulse excitation, 30Hz for one minute	MIL-STD-461G CS115 Par 5.13, Fig CS115-1



## QUALIFICATION STANDARDS CONT.

	Operational	Damped sinusoidal transients, cables and power leads, 10kHz to 100MHz, 5 minutes	MIL-STD-461G CS116 Par 5.14, Fig CS116-1 and CS116-2
Radiated Emissions	Operational	Magnetic field, 30Hz to 100kHz	MIL-STD-461G RE101 Par 5.17, Fig RE101-1 and Fig RE101-2
	Operational	Electric field, 10kHz to 18GHz	MIL-STD-461G RE102 Par 5.18, Fig RE102-3 Fixed wing external and Fixed wing internal < 25m
Radiated Susceptibility	Operational	Magnetic field, 30 Hz to 100 kHz	MIL-STD-461G RS101 Par 5.20 Fig RS101-2 Army
	Operational	Electric field, 2 MHz to 18 GHz	MIL-STD-461G RS103 Par 5.21, Table XI, Aircraft Internal Army
Power Supply	Operational, normal condition	Load measurements, ask for info	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-101
	Operational, normal condition	Steady state limits, 22 Vdc to 29 Vdc	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-102 Tests A, B, C
	Operational, normal condition	Voltage distortion spectrum	MIL-STD-704F Chg1 Fig 15 MIL-HDBK-704-8 LDC-103 Tests A thru K
	Operational, normal condition	Total ripple	MIL-STD-704F Chg1 Fig 15 MIL-HDBK-704-8 LDC-104, Table LDC104-II
	Operational, normal condition	Normal voltage transients, 18Vdc to 29Vdc	MIL-STD-704F Chg1 Fig 13 MIL-HDBK-704-8 LDC-105 Tests AA thru RR
	Operational, transfer interrupt	Power interrupt, 50ms, 22Vdc to 29Vdc	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-201
	Operational, abnormal condition	Steady state limits, 20.0 Vdc and 31.5Vdc, 30 minutes	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-301 Tests A and B
	Operational, abnormal condition	Abnormal voltage transients, abnormal condition	MIL-STD-704F Chg1 Fig 14 MIL-HDBK-704-8 LDC-302, Tests AAA thru NNN, 7 to 50V
	Operational, emergency condition	Steady state limits, 18 Vdc to 29 Vdc	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-401

## QUALIFICATION STANDARDS CONT.

Power Supply (cont.)	Operational, starting	Starting voltage transients, 12 Vdc to 29 Vdc	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-501, Table LDC501-IV
	Operational, power failure and automatic recovery	Power failure, from 100ms to 7 seconds	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-601 Tests A thru D
	Operational, power failure	Phase reversal protection/prevention	MIL-STD-704F Chg1 MIL-HDBK-704-8 LDC-602
Chassis Grounding	Operating	Allow for proper electrical bonding through designated external stub and dedicated pins on connectors	SAE-AS-50881H
Electrical Bonding	Operating	Primary Chassis ground connection for electrical bonding provided by designated external stub	MIL-STD-464C, Paragraph 5.11.3
Mounting	For vibration tolerance	4x 10-32 captive screws	

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40-60 Delaware Avenue  
Sidney, NY 13838  
[amphenol-aerospace.com](http://amphenol-aerospace.com) | [amphenolmao.com](http://amphenolmao.com)