# Ace Flight<sup>™</sup> 4783 iQ800 & JUPITER 2 – iQ800 Only – JUPITER 2 Only



## Ace Flight<sup>™</sup> 4783 Dual MODMAN

- > Integrated single or dual Satellite Modem Cards with RF switch
- > High performance Intel® Xeon® 6-Core processor, 64 GByte DRAM
- > L2 Managed Ethernet Switch
- > Compliant to ARINC 791/792
- > Qualified to DO-160G, Line-fit Ready



### **Product Highlights**

#### Ace Flight<sup>™</sup> 4783 MODMAN

Kontron's AF4783 MODMAN has been designed in accordance with ARINC 791/792 and has the unique ability to support two different SATCOM modems without any compromise or feature limitations. The MODMAN also includes an Intel® Xeon® 6-Core processor, L2+ Managed Ethernet Switch, cellular modem, ARINC 429 and fixed/removable storage options. The dual integrated satellite modem approach eliminates the need for a second MODMAN to be installed onto the aircraft thus removing weight, cost and complexity while still allowing the aircraft the ability to utilize different satellite operators by selecting the appropriate modem during flight. Kontron has designed its Ace Flight<sup>™</sup> 4783 MODMAN product family to support the different modem configurations (iQ800 & Jupiter 2, iQ800 only or Jupiter 2 only). This product line has been rigorously tested and qualified to D0-160G environmental conditions for airborne applications.

#### **Technical Information**

FORM FACTOR4MCU per ARINC 600, air flow-through Dimensions: 7.77 (197 mm) H x 4.88° (124 mm) W x 15.10° (384 mm) DSATCOM MODEMconfiguration dependent: -106: iDirect iQ800 and Hughes Jupiter 2 -111: iDirect iQ800 and Hughes Jupiter 2 -121: Hughes Jupiter 2 <th></th> <th></th>			
106: Direct iQ800 and Hughes Jupiter 2 -11: Direct iQ800 only -12: Hughes Jupiter 2 onlyPROCESSOR / MEMORYIntel® Xcon® E-2276ML (6x 2.0 GHz), CM246 PCH, GT2 64 GByte DDR4, ECC, RAM 	FORM FACTOR		
64 GByte DDR4, ECC, RAM TPM 2.0ETHERNET SWITCHL2+ Managed Ethernet SwitchSTORAGE4TB of fixed storage (NVMe) 1x Removable Solid State Drive (RSSD), capacity up to 8TB (Ordering Option)RF CONNECTIONSSATCOM: (1) Tx, (2) Rx RF connections cellular: (1) Rx/Tx RF (Main)CELLULAR MODEM4G/LTE modem with dual SIM slotsETHERNET PORTS10 x Ethernet Ports (8 x GbE, 2 x 100BT)ARINC 2496x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurableOTHER15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0FRONT I/OLEDS: Power, Status, Receive, Transmit Ethernet (RJ4S), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER15 XAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	SATCOM MODEM	-106: İDirect iQ800 and Hughes Jupiter 2 -111: iDirect iQ800 only	
STORAGE4TB of fixed storage (NVMe) 1x Removable Solid State Drive (RSSD), capacity up to 8TB (Ordering Option)RF CONNECTIONSSATCOM: (1) Tx, (2) Rx RF connections Cellular: (1) Rx/Tx RF (Main)CELLULAR MODEM4G/LTE modem with dual SIM slotsETHERNET PORTS10 x Ethernet Ports (8 x GbE, 2 x 100BT)ARINC 2496x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurableOTHER15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0FRONT I/OLEDs: Power, Status, Receive, Transmit Ethernet (RJ45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery 	PROCESSOR / MEMORY	64 GByte DDR4, ECC, RAM	
Ix Removable Solid State Drive (RSSD), capacity up to 8TB (Ordering Option)RF CONNECTIONSSATCOM: (1) Tx, (2) Rx RF connections Cellular: (1) Rx/Tx RF (Main)CELLULAR MODEM4G/LTE modem with dual SIM slotsETHERNET PORTS10 x Ethernet Ports (8 x GbE, 2 x 100BT)ARINC 2496x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurableOTHER15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0FRONT I/OLEDS: Power, Status, Receive, Transmit Ethernet (RI45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	ETHERNET SWITCH	L2+ Managed Ethernet Switch	
Cellular: (I) Rx/Tx RF (Main)CellulAR MODEM4G/LTE modem with dual SIM slotsETHERNET PORTS10 x Ethernet Ports (8 x GbE, 2 x 100BT)ARINC 2496x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurableOTHER15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0FRONT I/OLEDs: Power, Status, Receive, Transmit Ethernet (RI45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	STORAGE		
ETHERNET PORTS10 × Ethernet Ports (8 × GbE, 2 × 100BT)ARINC 2496× ARINC 429 Rx (fixed), 1× ARINC 429 (Tx/Rx) configurableOTHER15× DI, 6× DO, 3× Config, APM, 2× Audio, 1× USB 2.0FRONT I/OLEDs: Power, Status, Receive, Transmit Ethernet (RJ45), USB 3.0/2.0, Mini-Display Port, 2× SIM (cellular), RTC Battery Serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	RF CONNECTIONS		
ARINC 2496x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurableOTHER15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0FRONT I/OLEDs: Power, Status, Receive, Transmit Ethernet (RJ45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	CELLULAR MODEM	4G/LTE modem with dual SIM slots	
OTHER   15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0     FRONT I/O   LEDs: Power, Status, Receive, Transmit Ethernet (RI45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type B     SOFTWARE   Ubuntu 20.4 LTS, 64-bit     POWER   115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	ETHERNET PORTS	10 x Ethernet Ports (8 x GbE, 2 x 100BT)	
FRONT I/O   LEDs: Power, Status, Receive, Transmit Ethernet (RJ45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type B     SOFTWARE   Ubuntu 20.4 LTS, 64-bit     POWER   115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	ARINC 249	6x ARINC 429 Rx (fixed), 1x ARINC 429 (Tx/Rx) configurable	
Ethernet (RI45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery Serial Interface via USB Type BSOFTWAREUbuntu 20.4 LTS, 64-bitPOWER115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	OTHER	15x DI, 6x DO, 3x Config, APM, 2x Audio, 1x USB 2.0	
POWER 115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up	FRONT I/O	Ethernet (RJ45), USB 3.0/2.0, Mini-Display Port, 2x SIM (cellular), RTC Battery	
	SOFTWARE	Ubuntu 20.4 LTS, 64-bit	
	POWER	115 VAC (360 – 800 Hz) Aircraft Power with 200msec Hold-up 100 W nominal	
ENVIRONMENT Qualified to D0-160G, Line-Fit Ready	ENVIRONMENT	Qualified to DO-160G, Line-Fit Ready	
WEIGHT 15.8 lbs (7.17 kg)	WEIGHT	15.8 lbs (7.17 kg)	
OPERATING TEMPERATURE -15 °C to +70 °C	OPERATING TEMPERATURE	-15 °C to +70 °C	

### **Ordering Information**

ARTICLE	PART NO.	DESCRIPTION
AF4783 LRU	73005010-106	LRU, AF4783 MODMAN DUAL MODEM   iQ800 & JUPITER 2
AF4783 LRU	73005010-111	LRU, AF4783 MODMAN SINGLE MODEM   iQ800
AF4783 LRU	73005010-121	LRU, AF4783 MODMAN SINGLE MODEM   JUPITER 2
AF4783 TRAY, LAB	73005010-501	TRAY & BREAKOUT I/O CABLES, LAB

### **About Kontron**

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron-provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from aceerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: www.kontron.com

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