

**PRODUCT OVERVIEW**

The D1U86P-12-CONC-460 interface connector card is intended to be used to interconnect the output voltages and signals of the D1U86G-W-460-12-HAXC power supply for laboratory/bench level evaluation of the following Murata PS products:

D1U86G-W-460-12-HB4DC

D1U86G-W-460-12-HB3DC

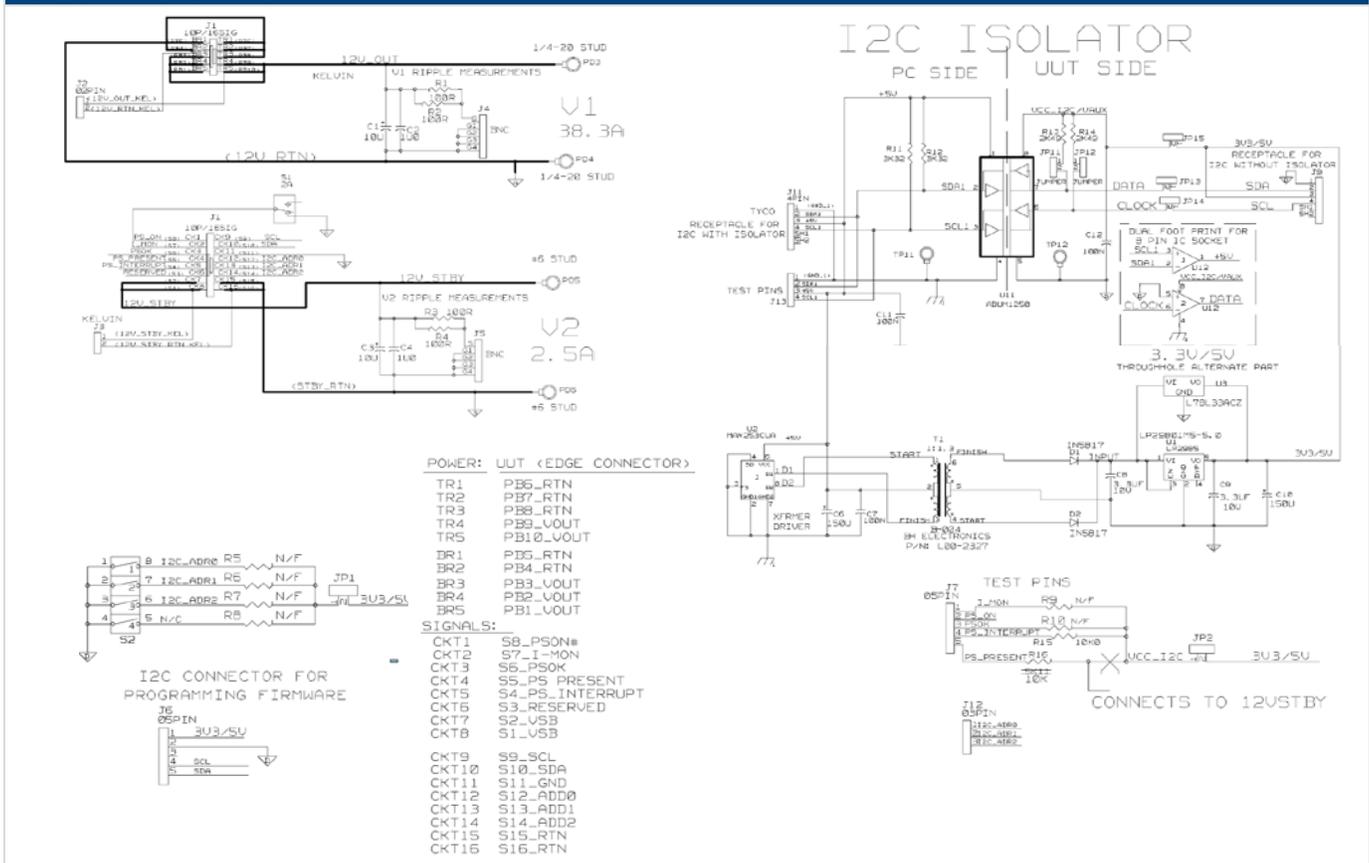
**Included Items**

Item	Desc	MFG	QTY	Image
D1U86G-12-CONC-460	PSU Connector Card	Murata PS	1	1
77902017881	PMBob I2C/USB to PSU connector card adapter board	Murata PS	1	3
MMC CAB4R	Cable, connects the PSU connector card to PMBob I2C/USB Adapter board	MMC	1	2
Hardware, Screw 5001-01205-0	Screw, 1/4-20, 0.625" Panhead Philips#3, Main output Connection	Murata PS	2	
Hardware, Nut 5001-01200-0	Nut KEPS, 1/4-20 clear Zinc MPS # 5001-01200-0 Main output Connection	Murata PS	2	
Hardware, Screw 46-0000037-0	Screw 6-32 1/2 Panhead, Standby output connection	Murata PS	2	
Hardware, Screw 47-0000010-0	Nut 6/32 SEMS Standby output connection	Murata PS	2	

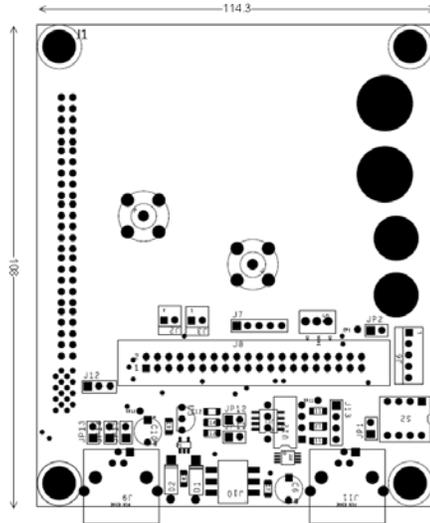
**SAFETY PRECAUTION**

The D1U86P-12-CONC output connector card is intended to facilitate the connection of the output supply rails of the power module. As such there is a high energy source (12VDC) exposed on the output connector card; please take the necessary safety precautions during the use of this connector card for product evaluation.

**SCHEMATIC – D1U86P-12-CONC-460**



MECHANICAL OUTLINE – D1U86P-12-CONC-460



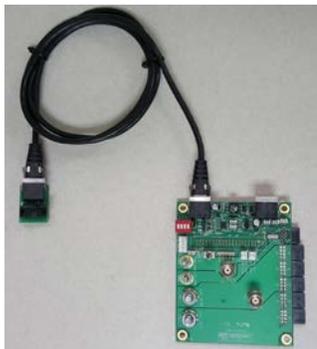
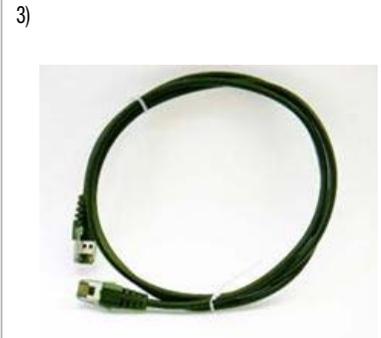
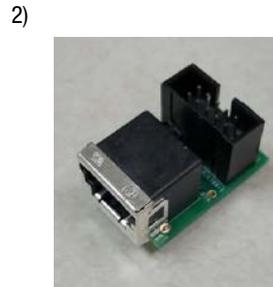
Note: Consult Murata Sales for details if intended for system deployment.

IMAGES – D1U86P-12-CONC-460

PSU Interface Card

PMBob I2C/SPI connector board

PMBob to PSU Interface Card Cable



Assembly example, with External PMBob I<sup>2</sup>C/USB interface (not included), contact Murata PS for PMBob details:



**CONFIGURATION NOTES:**

1. Unit should be shipped with Jumpers in place. Ensure Jumpes are fitted:
  - a) JP2 (PS Interupt Pull up)
  - b) JP11 & JP12 (Internal supply voltage to I<sup>2</sup>C Isolator device)
  - c) JP13, JP14 (non-isolated I2C connectivity to J9)
  - d) JP15 (supply voltage for I2C isolation IC)
  - e) JP1 has no function
2. The BNC connectors for ripple & noise measurements of 12VB (bias/standby) and 12V\_OUT are intended for direct (BNC to BNC) connection (or via a 10X probe if required) to an oscilloscope; note that there is a series 50ohm resistance (see schematic).  
 Note also that the measurement node is filtered with a parallel connected 10µF tantalum and 1µF ceramic capacitor (across tip to ground); the measurement bandwidth should be limited to 20MHz.
3. S1 turns on/off the 12VDC Main Output by effectively changing the state of the PS\_ON signal (see product datasheet).
4. S2 is a 4 Pole SPST DIP Switch that is intended to select the user configurable bits that assign the variable address for I2C communication with the power supply. D1U86G-W-460-12-HAXC products employ three inputs for setting the addresses for the internal power supply slave devices (EEPROM and microprocessor) used for digital communications. Switch selectable address configurations are listed in table below:

S2 Position #3 (A2) Serial Address BIT 2	S2 Posiiton #2 (A1) Serial Address BIT 1	S2 Position #1 (A0) Serial Address BIT 0	Power Module Main Controller (Serial Comm Slave Address)	Power Module Main EEPROM (Serial Comm Slave Address)
LOW	LOW	LOW	0xB0	0xA0
LOW	LOW	HIGH	0xB2	0xA2
LOW	HIGH	LOW	0xB4	0xA4
LOW	HIGH	HIGH	0xB6	0xA6
HIGH	LOW	LOW	0xB8	0xA8
HIGH	LOW	HIGH	0xBA	0xAA
HIGH	HIGH	LOW	0xBC	0xAC
HIGH	HIGH	HIGH	0xBE	0xAE

5. Connector J11 and J9 facilitate I2C communications via an external I2C/PMBob interface. J9 is non-isolated and J11 is isolated. PMBob USB to I2C Interface external device allows communications via a USB port of a laptop or PC that can be used with the provided MPS software GUI and is the recommended communication interface for use with this interface card for initial bench evaluation.

