



PRODUCT OVERVIEW

D1U74T-12-CONC2.7K is an interface connector card that provides a convenient method to connect a Murata D1U74T-x-2700-12-HxxC-xx power supply module. Access points are provided for hardware and digital signals as well as DC power load connection, which simplifies operation.

The robust circuit board design makes this interface connector card suitable for continuous operation as an interposer or mid-plane function in a system. PMBus™ communications is supported with Murata [PMBob™](#) USB to I2C Interface.

Compatible with D1U74T-W-3200-12-HxxC-xx series power module.

INTRODUCTION

The [Top View and Feature Map](#) provides location details for the headers, switches, jumpers, threaded studs provided to connect system loads and access and configure the power supply module.

- Threaded Studs are provided for the DC output power connections:
 - +12Vdc main output
 - Standby Output (Vsb.)
- Header, jumpers, and switches are provided for these signals and configuration settings:

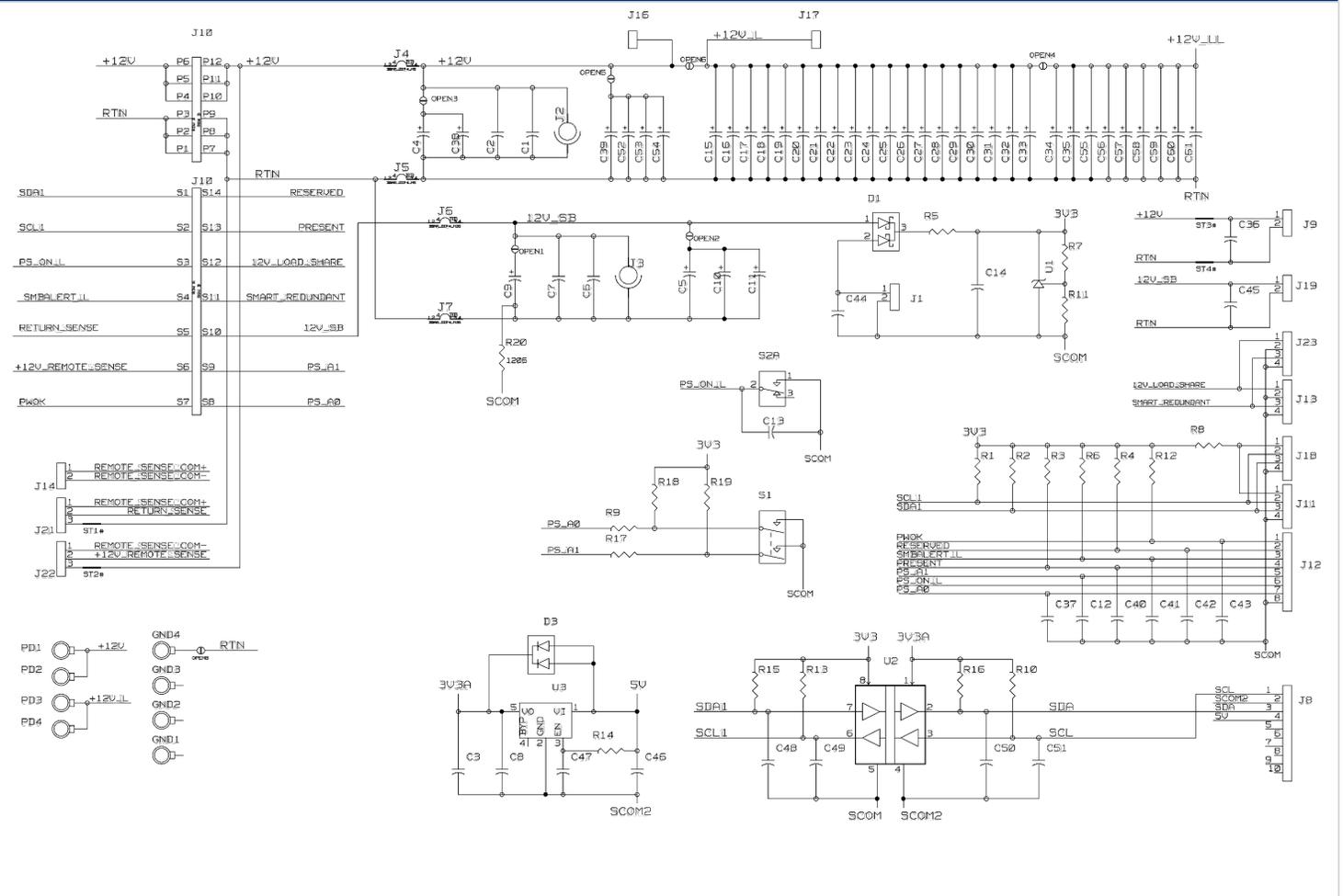
✓ REMOTE SENSE	✓ PRESENT	✓ CR	✓ SCL
✓ PWOK	✓ A0, A1	✓ ISHARE	✓ SDA
✓ SMBALERT_L	✓ PSON#	✓ PRESENT_L	✓
- PMBus serial communications access header readily accommodates Murata's PMBob I2C to USB adapter, [available separately](#)
- PMBus slave device address: [DIP Switches](#) are provided to set the address.
- Output on/off control: A [toggle switch](#) is provided for PSON# main output on/off control.

SAFETY PRECAUTION

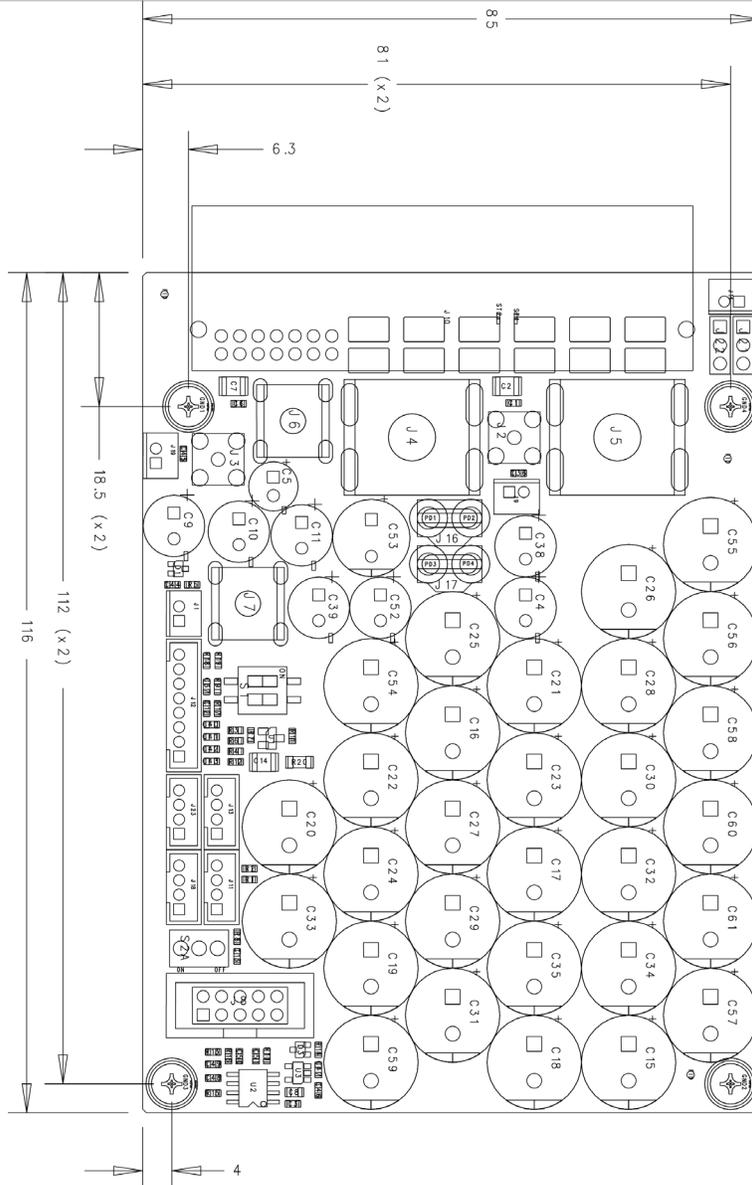


The D1U74T-12-CONC2.7K interface connector card and power supply module are components intended to be built into a safety enclosure (system/host). The installation of the interface connector card and power supply module must be verified and approved in the end system safety certification.

SCHEMATIC



MECHANICAL OUTLINE



Notes:

1. This drawing is a graphical representation of the product and might not show all fine details.
2. Textures, screw head patterns, molded parts may appear different from this illustration. Contact Murata Power for 3D-model details.
3. Dimensions in mm.
4. Subject to change. Contact Murata Power for the latest version.

POWER SUPPLY MODULE CONNECTOR CARD INTERFACE OVERVIEW

D1U74T-x-2700-12-HxxC-xx power supply module uses a card edge (“PCB Gold Fingers”) and is compatible with FCI/Amphenol HPG12P14SRT153T receptacle, provided on the interface connector board, “J10”.

DC OUTPUT POWER CONNECTIONS

Location	Function	Details	Image
J4	+12Vdc output connection	M5x10 stud with nut provided	 qty 2
J5	+12Vdc RTN output connection ¹	M5x10 stud and nut provided	
J6	+VSB output connection	STUD M3.5x8 and nut provided	 qty 2
J7	VSB RTN output connection ¹	STUD M3.5x8 and nut provided	

¹Both outputs share a common return “RTN.”

SWITCHES

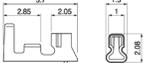
Location	Function	Function	Image															
S2A	PSON#	Main output “+12Vdc” on/off control; Output on when set to “ON” position																
S1	PMBus Slave Address Device select	<table border="1"> <thead> <tr> <th>Slave Address (hex) PSU μP / EEPROM</th> <th>A1 Switch state (Pos 1)</th> <th>A0 Switch state (Pos 2)</th> </tr> </thead> <tbody> <tr> <td>0xB0</td> <td>ON</td> <td>ON</td> </tr> <tr> <td>0xB2</td> <td>ON</td> <td>OFF</td> </tr> <tr> <td>0xB4</td> <td>OFF</td> <td>ON</td> </tr> <tr> <td>0xB6</td> <td>OFF</td> <td>OFF</td> </tr> </tbody> </table>	Slave Address (hex) PSU μ P / EEPROM	A1 Switch state (Pos 1)	A0 Switch state (Pos 2)	0xB0	ON	ON	0xB2	ON	OFF	0xB4	OFF	ON	0xB6	OFF	OFF	
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		0xB0	ON	ON														
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		0xB4	OFF	ON														
0xB6	OFF	OFF																

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SIGNAL ACCESS CONNECTORS AND CONFIGURATION JUMPERS (continued)

Signal Connector J12

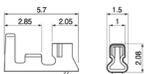
J12 8-position header provides access to the signals listed in the following table.

Pin#	Pin Function	PIN Identification "J12"
1	PWOK	Header: JST P/N: B8B-PH-K-S(LF)(SN)  Contact: JST P/N: SPH-002T-P0.5L (for 24-28AWG)  Housing: JST P/N: PHR-8 
2	No Connection (NC)	
3	SMBALERT_L	
4	PRESENT	
5	A1	
6	PSON#	
7	A0	
8	SCOM ¹	

¹SCOM is connected to RTN within the connector interface card.

Signal Connector J13 and J23

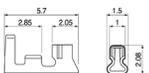
J13 and J23 4-position headers provide access to the signals listed in table to right. The pins of these two headers are connected together internally on the Connector Interface Card.

Pin#	Pin Function	PIN Identification "J12"
1	ISHARE	Header: B4B-PH-K-S(LF)(SN)  Contact: JST P/N: SPH-002T-P0.5L (for 24-28AWG)  Housing: JST P/N: PHR-4 
2	SCOM ¹	
3	CR	
4	SCOM ¹	

¹SCOM is connected to RTN within the Connector Interface Card

Signal Connector J11 and J18

J11 and J18 4-position headers provide access to the signals listed in the following table. The pins of these two headers are connected together internally on the connector interface card.

Pin#	Pin Function	PIN Identification "J12"
1	3.3Vdc	Header: B4B-PH-K-S(LF)(SN)  Contact: JST P/N: SPH-002T-P0.5L (for 24-28AWG)  Housing: JST P/N: PHR-4 
2	SCL	
3	SDA	
4	SCOM ¹	

¹SCOM is connected to RTN within the connector interface card.

PMBob Connector

PMBob™ connector J8 interfaces with Murata PMBob™, a fully featured I2C bus master and USB to I2C Interface for a convenient method to communication via PMBus™ with the slave devices (PSU Secondary controller and FRU EEPROM). The control panel GUI provides convenience when status monitoring and specific PMBus read/write command tasks are required, contact Murata Power for additional details for the latest GUI.

Scope Connections

J2 and J3 are TE connectivity PN: 1-1337482-0 male coaxial SMB type connectors for ripple & noise measurements, and are intended for direct connection to an oscilloscope. Ensure the scope's 20Mhz bandwidth limit is enabled. This measurement node is filtered with a parallel connected 10µF and 100nF ceramic capacitors, across tip to ground points as shown in schematic. J2: +12V J3: Vsb.



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OPTIONAL ACCESSORIES

Description	Part Number
PMBob™ USB to I ² C interface ¹	MS-PMBob

¹ Contact Murata Power for availability.

REFERENCED DOCUMENT LINKS

Document Number	Description	Link to Document
D1U74T-W-2700-12-HB4C	Product Datasheet	URL Link to Datasheet

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ISO 9001 REGISTERED



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