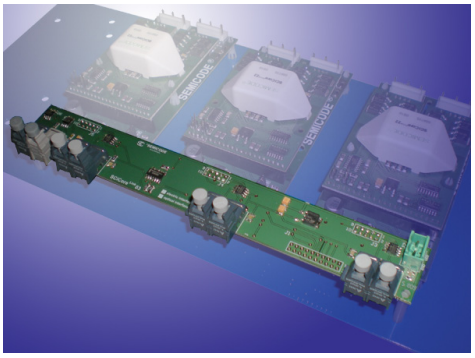
PRELIMINARY TECHNICAL INFORMATION

Electrical/optical interface



non-contractual photo

HIGHLIGHTS
- Designed for MTM/MTH-series
- Optical version available
- Electrical version available

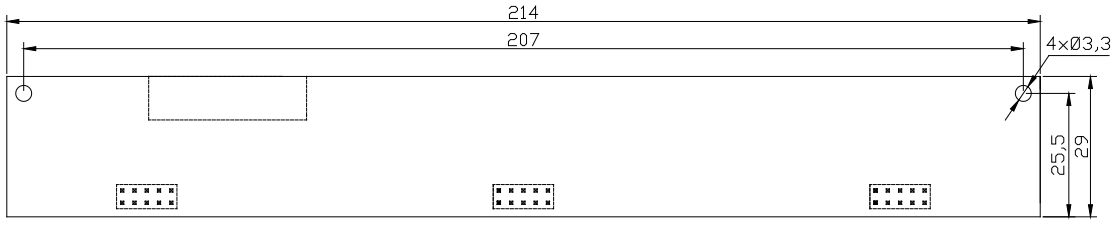
SCi*Core*^{Link}03 provides an electrical/optical interface between logical signals from control system to the gate drivers adaptation boards **SCi*Core*^{Link}62** and **SCi*Core*^{Link}67.** Electrical version is a physical link that concentrates up to 3 driver board primary signals in a single connector. Optical version is used when the transmission between control and power stack is through fiber optic, and it transforms the optical signal into electrical signal.

OPTICAL VERSION CHARACTERISTICS

Description	*symbol*	*notes/test conditions*	*Min*	*Typ*	*Max*	*Units*
Reciever optical input power level LOGIC 0	$P_{R(L)}$		-20			dBm
Reciever optical input power level LOGIC 1	$P_{R(H)}$				-43	dBm
Transmitter output optical power LOGIC 0	P_T	T=25ºC	-15,5		-5,1	dBm
Output optical power temperature coefficient	$\Delta P_T/\Delta T$			-0,85		%/ºC
Peak emission wavelength	λ_{PK}			660		nm
Effective diameter	D			1		mm
Numerical aperture	NA			0.5		mm

recommended connector for fiber optical transcievers: AVAGO HFBR-4503Z

DIMENSIONS

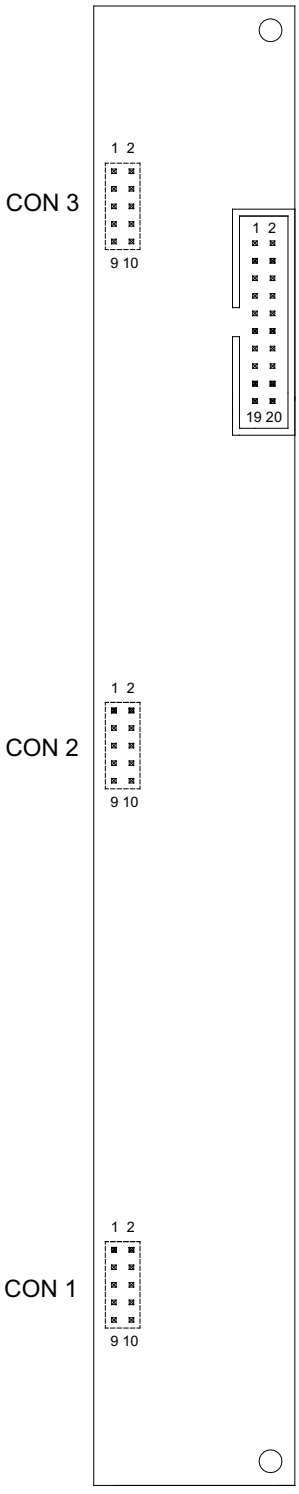


all dimensions in mm

091125Rev.:0

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.

ELECTRICAL VERSION



DRIVER SIDE

CON1	*designation*	*function*
1	PWM 2	PWM signal for IGBT 2
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT U	FAULT input from driver (ARM U)
7	RESET U	RESET output for driver (ARM U)
6, 8, 9	GND	GND for driver supply
10	PWM 1	PWM signal for IGBT 1
CON2	***designation***	***function***
1	PWM 4	PWM signal for IGBT 4
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT V	FAULT input from driver (ARM V)
7	RESET V	RESET output for driver (ARM V)
6, 8, 9	GND	GND for driver supply
10	PWM 3	PWM signal for IGBT 3
CON3	***designation***	***function***
1	PWM 6	PWM signal for IGBT 6
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT W	FAULT input from driver (ARM W)
7	RESET W	RESET output for driver (ARM W)
6, 8, 9	GND	GND for driver supply
10	PWM 5	PWM signal for IGBT 5

USER (CONTROLLER) SIDE

CON4	*designation*	*function*
1, 2, 3, 4, 20	GND	GND for supply
5	PWM 6	PWM signal for IGBT 6
6	FAULT W	FAULT output from driver (ARM W)
7	PWM 5	PWM signal for IGBT 5
8	FAULT V	FAULT output from driver (ARM V)
9	PWM 4	PWM signal for IGBT 4
10	FAULT U	FAULT output from driver (ARM U)
11	PWM 3	PWM signal for IGBT 3
12	RESET	RESET input for driver (note 1)
14	PWM 1	PWM signal for IGBT 1
13, 15, 16, 17, 18	Vcc	+15V_{DC} for supply
19	PWM 2	PWM signal for IGBT 2

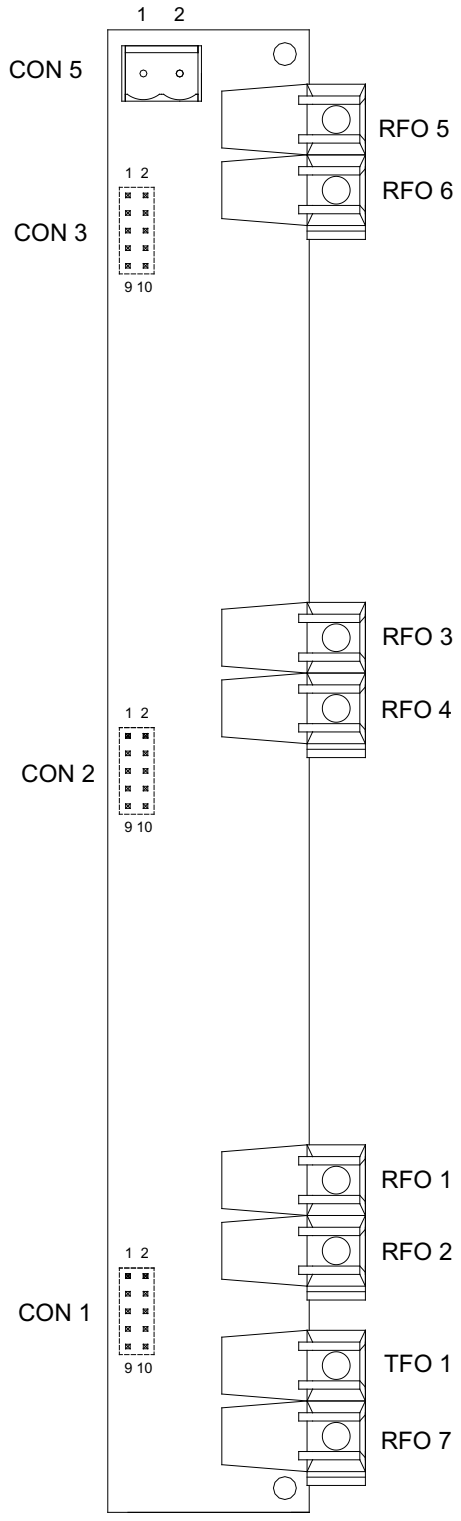
connector CON1, 2, 3 type FCI 76342-305LF
connector CON 4 type TYCO 2-1634688-0

note 1: RESET input is linked directly to each arm driver RESET

091125Rev.:0

Reserves the right to change limits, test conditions and dimensions given in
this data sheet at any time without previous notice.

OPTICAL VERSION



DRIVER SIDE

CON1	*designation*	*function*
1	PWM 2	PWM signal for IGBT 2
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT U	FAULT input from driver (ARM U)
7	RESET	RESET output for driver (ARM U)
6, 8, 9	GND	GND for driver supply
10	PWM 1	PWM signal for IGBT 1

CON1	*designation*	*function*
1	PWM 4	PWM signal for IGBT 4
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT U	FAULT input from driver (ARM V)
7	RESET	RESET output for driver (ARM V)
6, 8, 9	GND	GND for driver supply
10	PWM 3	PWM signal for IGBT 3

CON1	*designation*	*function*
1	PWM 6	PWM signal for IGBT 6
2, 3, 5	+15Vcc	+15V_{DC} for driver supply
4	FAULT U	FAULT input from driver (ARM W)
7	RESET	RESET output for driver (ARM W)
6, 8, 9	GND	GND for driver supply
10	PWM 5	PWM signal for IGBT 5

USER (CONTROLLER) SIDE

RFO1	fiber optic reciever PWM1
RFO2	fiber optic reciever PWM2
RFO3	fiber optic reciever PWM3
RFO4	fiber optic reciever PWM4
RFO5	fiber optic reciever PWM5
RFO6	fiber optic reciever PWM6
RFO7	fiber optic reciever RESET (note1)
TFO1	fiber optic transmitter FAULT (note 2)

CON 5:1	+15V_{DC} for board supply
CON 5:2	GND for board supply

connector CON1, 2, 3	type FCI 76342-305LF
connector CON 5	type SAURO COM020P5
connector RFOX	type AVAGO HFBR-2524
connector TFO1	type AVAGO HFBR-1524

note 1: RESET input is linked directly to each arm driver RESET. RESET input is active low
note 2: FAULT output is the logic AND of each arm driver FAULT signal. It is low level while any arm fault is low.

091125Rev.:0

Reserves the right to change limits, test conditions and dimensions given in
this data sheet at any time without previous notice.

Cost Effective Products

SEMICODE ELECTRONICA

offers to the market a comprehensive range of products from recognized manufacturers at the best price/ quality relationship, this products are provided with a basic reference code that allows maintaining the same product reference even if the original device manufacturer is replaced. SEMICODE product reference has to be considered as a generic brand.

Seeking the market needs and trends, we are constantly increasing the product portfolio with new products and suppliers, please ask for the updated information available to our local contacts.

SEMICODE products include semiconductors, passive components and accessories focused in power electronics market.

Datasheet Annotations:

SEMICODE ELECTRONICA annotate datasheets in the top left hard corner of the front page, to indicate product status. The annotations are as follows:
Tentative information: This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.
Preliminary Information: The product is in design and development. The datasheet represents the product as it is understood but details may change.
Advance Information: The product design is complete and final characterisation for volume production is well in hand.
No Annotation: The product parameters are fixed and the product is available to datasheet specification.

NOTICE: The technical data are to specify components, not to guarantee their properties.No warranty or guarantee expressed or implied is made regarding delivery or performance. The Company reserves the right to alter without prior notice the specification of any product. Information concerning possible methods of use is provided as a guide only and does not constitute any guarantee that such methods of use will be satisfactory in a specific piece of equipment. It is the user's responsibility to fully determine the performance and suitability of any equipment using such information and to ensure that any publication or data used is up to date.

All brand names and product names used in this publication are trademarks, registered trademarks or trade names of their respective owners.

© SEMICODE ELECTRONICA 2008. TECHNICAL DOCUMENTATION – NOT FOR RESALE

091125Rev.:0

Reserves the right to change limits, test conditions and dimensions given in this data sheet at any time without previous notice.