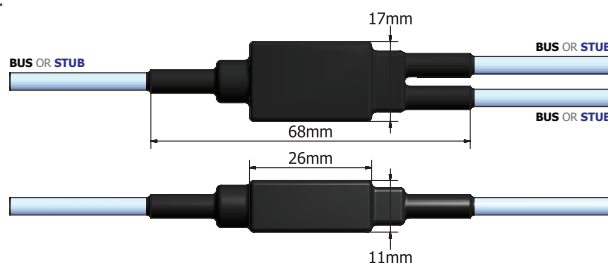


SPECIFICATIONS

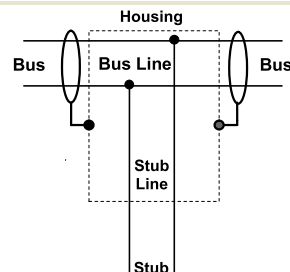
MIL-STD-1553B
STANAG 3838
SAE AS4115

AMBD / S - C1 - XX

Bus and stub can be placed anywhere as long as there are two bus lines and one stub line.



Electrical scheme



Identification code

AMBD /

S

C1

XX

AXON'
MICROBUS
DIRECT
COUPLER

S : SPACE
VERSION

1 : 1 WAY IN-LINE DIRECT
COUPLER

CABLE REFERENCES

- 40: TWINAX BUS AWG 24 SB (single braid) acc. to SSQ 21655 (NASA qualified).
- 41: TWINAX BUS AWG 24 DB (double braid).
- 43: TWINAX BUS AWG 26 SB (single braid).
- 44: TWINAX BUS AWG 26 DB (double braid).
- 45: TWINAX BUS AWG 22 SB (single braid) acc. to SSQ 21655 (NASA qualified).
- 80: TWINAX BUS AWG 24 SB (single braid) according to ESCC 3902.002.20.

NOTE: CABLE LENGTH AND CABLE COLOUR TO BE DEFINED WHEN ORDERING (possibility to differentiate bus and stub cable with a striped colour tape under the transparent jacket or the extrusion of a colour jacket).

Electrical characteristics

PARAMETERS	REQUIRED	ACTUAL
Nominal line impedance*	70 to 84 Ω	77 Ω
Turn ratio	1.41 \pm 3%	1.41 \pm 3%
CMR	< -45 dB at 1 MHz	< -50 dB at 1 MHz
Input impedance	> 1500 Ω in the frequency range (75 kHz to 1 MHz) and in the indicated temp. range (-65°C to 150°C)	> 1500 Ω
Fault protection insulation resistors in series on each bus winding connection	0.75 $Z_o \pm$ 2%	57.6 $\Omega \pm$ 1%
Stub line bleed off resistor		2 M $\Omega \pm$ 2%
Insulation resistance between:		
- bus / stub	100 M Ω	> 1 000 M Ω at 250 V _{DC}
- bus / shield	100 M Ω	> 1 000 M Ω at 500 V _{DC}
Transfer impedance	-	plot available
Shield continuity	-	10 m Ω maximum
Shield coverage	Cable 90% Connection 75%	Cable 90% minimum Connection 100%
Dielectric withstanding strength:		
- between shield and bus line	500 V _{RMS}	500 V _{RMS}
- between outer insulation and shield	500 V _{RMS}	500 V _{RMS}

* Impedance: seen from the stub when the bus line is loaded with Z_o at both sides of the coupler.

Environmental characteristics

PARAMETERS	REQUIRED	ACTUAL
Operating temperature	-	-65°C to +150°C
Out-gassing	SP-R-0022 - TML < 1% ASTM-E-595 - CVCM < 0.1% ECSS-Q-ST-70-02	TML = 0.0005% RML = 0000027% CVCM = 0%
Off-gassing	NHB 8060.1 Test 7 ECSS-Q-ST-70-29	T = 0.00024 for 65 m ³ volume per coupler* MLW (#) = 2112 for 65 m ³ volume*
MTBF according to MIL HDBK-217	-	1.78 x 10 ⁸ at 25°C and Space Flight environment

Out and Off-gassing results, flammability available for all materials used.

* Typical values obtained by AMB/S-C1 coupler during qualification phase.