

MCAH GENERAL DATA SHEET

page 1 / 2

Applicable Standards

Interface according to USCAR 888-X-0XX-X-Z02

Electrical characteristics

Characteristic impedance	50	Ω
Frequency range	DC to 15	GHz
Return loss (typical)	≥ 25 dB @ DC to 3 GHz	
	≥ 20 dB @ 3 GHz to 6 GHz	
	≥ 18 dB @ 6 GHz to 9 GHz	
	≥ 12 dB @ 9 GHz to 15 GHz	
Insertion loss	$\leq 0.1 \times \sqrt{f}$ (GHz) dB	
Cross Talk (typical)	≥ 60 dB @ DC to 3 GHz	
	≥ 55 dB @ 3 GHz to 6 GHz	
	≥ 50 dB @ 6 GHz to 9 GHz	
	≥ 40 dB @ 9 GHz to 15 GHz	
Shielding Effectiveness typical)	≥ 60 dB @ DC to 3 GHz	
	≥ 55 dB @ 3 GHz to 6 GHz	
	≥ 50 dB @ 6 GHz to 9 GHz	
	≥ 40 dB @ 9 GHz to 15 GHz	
Insulation resistance	~ 1	G Ω
Center contact resistance	≤ 15	m Ω
Outer contact resistance	$\leq 7,5$	m Ω
Test voltage	500	V rms
Working voltage	60	V max.

Mechanical characteristics

Mating cycles	≥ 25	
Mating force	max. 75	N
Unmating force	max. 60	N
Retention force locked system	min 120	N

Materials

Plastic Housing	PPA / PA-GF
Outer contact	Bronze / Zinc alloy
Center contact	Brass / Bronze
Insulator	LCP
Other metal parts	Zinc alloy

Standard plating

Outer contact	Sn
Center contact	Au
Other parts	Sn

Environmental influences

Temperature range	-40°C up to +105°C
Mechanical shock	IEC 60068-2-27
Vibration	IEC 60068-02-64 Severity 1
Thermal change	IEC 60068-2-14
Damp heat, cyclic	IEC 60068-2-30
Dry heat	IEC 60068-2-2 (+105°C)
RoHS	compliant
Solder profile	according to JEDEC 020 (250°)

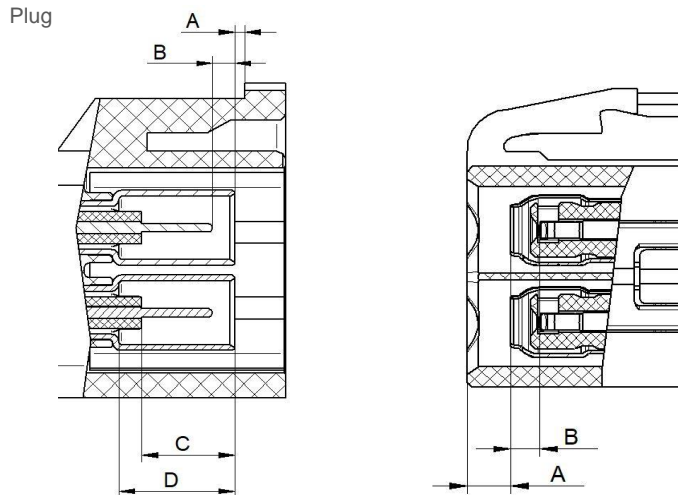
Date/Generated: 12.06.2023 / I.Fasold

Revision: a

Date/Approved: 12.06.2023 Schäuble / Fung

MCAH GENERAL DATA SHEET

Interface dimensions



	Plug		Jack	
	(mm)		(mm)	
	min.	max.	min.	max.
A	0,35	0,6	0,9	1,2
B	1,15	0,85	1,8	2,1
C	4,05	4,25		
D	5,05			

Coding Types

Coding Type	Plug	Color	Similar to RAL
A		jet black	9005
B		pure white	9010
C		light blue	5012
D		claret violet	4004
E		may green	6017
F		nut brown	8011
Z		waterblue	5021

Coding Type	Jack	Color	Similar to RAL
A		jet black	9005
B		pure white	9010
C		light blue	5012
D		claret violet	4004
E		may green	6017
F		nut brown	8011
Z		waterblue	5021

Notes

* Connector performance strongly depends on PCB type and layout.

All details are typical values and may vary in individual cases. Please refer to detail specification.

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Date/Genera 12.06.2023 / I.Fasold

Revision: a

Approved: 12.06.2023 Schäuble / Fung