

## MCAH GENERAL DATA SHEET

page 1 / 2

### Applicable Standards

Interface according to

### 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                   | ≤ 0.1 x √ 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                       | GΩ     |
| Center contact resistance        | ≤ 15                      | mΩ     |
| Outer contact resistance         | ≤ 7,5                     | mΩ     |
| 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     | Brass / Bronze |
| Center contact    | Brass / Bronze |
| Insulator         | SPS            |
| Other metal parts | GD-Zn          |

### 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 (260° ) |

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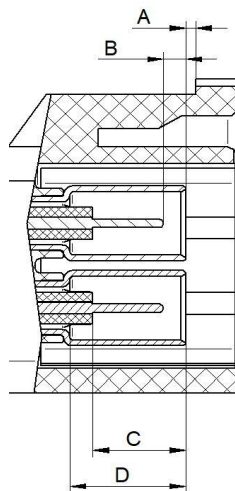
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## MCAH GENERAL DATA SHEET

### Interface dimensions

Plug



|   | Plug |      | Jack |      |
|---|------|------|------|------|
|   | (mm) |      | (mm) |      |
|   | min. | max. | min. | min. |
| A | 0,35 | 0,6  |      |      |
| B | 1,15 | 0,85 |      |      |
| 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           |

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|-------------|------|---------------|----------------|
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| 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.

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