

# High voltage 18 kV DC-DC block

9077.17.0022

## Properties

- Galvanic isolation of the RF signal path
- Broadband operation up to 3000 MHz
- Maintenance free
- Protects against electromagnetic interference caused by traction return current
- Provide ground potential separation
- Tested up to 18 kV



## Product configuration

|                        |  |
|------------------------|--|
| Main path connectors   | Port 1: N jack (female)<br>Port 2: N jack (female) |
| Mounting and grounding | MH110 (bulkhead mounting)                          |
| Side of bulkhead       | Port 2   |

## Interface and material data

|                                    |   |
|------------------------------------|---|
| Housing material / plating         | POM (Polyoxymethylene)  |
| Center contact, material / plating | Port 1: Copper Beryllium Alloy / Gold Plating (without Nickel underplating) |
|                                    | Port 2: Copper Beryllium Alloy / Gold Plating (without Nickel underplating) |

## Electrical data

|                                    |                     |
|------------------------------------|---------------------|
| Impedance                          | 50 $\Omega$         |
| Frequency frame                    | 180 MHz to 3000 MHz |
| Return loss typical                | $\geq 16$ dB        |
| Insertion loss typical             | $\leq 0.5$ dB       |
| CW power frame                     | $\leq 80$ W         |
| Peak power frame                   | $\leq 250$ W        |
| PIM 3rd order                      | -150 dBc            |
| Galvanic isolation inner conductor | Yes                 |
| Galvanic isolation outer conductor | Yes                 |
| Blocking voltage center conductor  | $\leq 15000$ V DC   |
| Blocking voltage outer conductor   | $\leq 15000$ V DC   |
| Leakage current                    | $\leq 50$ $\mu$ A   |
| Test voltage                       | 18000 V             |

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| Electrical data          |        |
|--------------------------|--------|
| Test leakage current max | 100 µA |

| Electrical bands    |                      |
|---------------------|----------------------|
|                     | Range 1              |
| Frequency range     | 380 MHz ... 3000 MHz |
| Return loss typical | ≥ 20 dB              |
| Insertion loss      | ≤ 0.5 dB             |
| Power avg. / peak   | ≤80 W / ≤250 W       |
| PIM 3rd order       | -150 dBc typ.        |

| Mechanical data |       |
|-----------------|-------|
| Weight          | 657 g |

| Environmental data             |                                      |
|--------------------------------|--------------------------------------|
| Operation temperature          | -40 °C ... 85 °C                     |
| Storage temperature            | -40 °C ... 85 °C                     |
| Ingress protection (IP Rating) | Mated / IP65, according to IEC 60529 |
| Thermal shock according        | MIL-STD-202, Method 107, Cond. B     |
| Vibration according            | MIL-STD-202, Method 204, Cond. D     |
| Moisture resistance according  | MIL-STD-202, Method 106              |

| Compliance  |                                   |                                 |                      |
|-------------|-----------------------------------|---------------------------------|----------------------|
| Item number | Directive / Regulation            | Rating                          | Exemptions / Details |
| 84007399    | RoHS 2011/65/EU and (EU) 2015/863 | Compliant with exemption        | 6c                   |
|             | REACH 1907/2006 Article 33 SVHC   | Contains one or more SVHC >0,1% | CAS: 7439-92-1 Lead  |

| Ordering Information Table |                  |
|----------------------------|------------------|
| Item number                | Item description |
| 84007399                   | 9077.17.0022     |

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