

## 2x2, 3 dB hybrid coupler 7404.31.0001

### Hybrid Coupler

#### Description

This hybrid coupler has been designed to meet the special needs of the wireless market. They are most commonly used to combine two wireless carriers in the band to a single antenna feed or distribution cable. This requires the termination of one output port in 50 Ohm and results in a 3 dB loss in each signal. In situations where two similar feeds are required, as required for an in-building application, both outputs may be used eliminating the need for a termination and the 3 dB loss. Isolation is maximized while passive intermodulation (PIM) is minimized.



#### Technical Data

##### Electrical Data

	Band 1	Band 2
Frequency	0.694 - 0.79 GHz	0.79 - 2.7 GHz
Return Loss	20.8 dB	20.8 dB
Coupling	3 dB	3 dB
Insertion Loss	3.05 dB	3.05 dB
Insertion Loss flatness	+/- 0.5 dB	0.4 dB
Isol. between Input ports	25 dB	25 dB
Isol. between Output ports	25 dB	25 dB
Max Power/input port	400 W	400 W
Peak Envelope Power	2000 W	2000 W
Intermodulation distortion	-161 dBc	-161 dBc
@ 2 x Carrier Power	43 dBm	43 dBm

	Input 1	Input 2
Port Designation	J1 IN	J2 IN
Connector Type	4.3-10	4.3-10
Gender	jack (female)	jack (female)

	Output 1	Output 2
Port Designation	J3 OUT	J4 OUT
Connector Type	4.3-10	4.3-10
Gender	jack (female)	jack (female)

Char. impedance 50  $\Omega$

##### Mechanical Data

Dimensions 41 x 174.8 x 58.4 mm (Height x Width x Length)  
Weight 1.1 kg

##### Environmental Data

Environmental conditions outdoor  
Operation temperature -40 °C to 65 °C  
IP rating IP67  
2011/65/EU (RoHS - including 2015/863 and 2017/2102) compliant

##### Material Data

Housing Material Aluminium  
Surface treatment Black paint

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### Related Documents

Outline drawing

DOU-00320966

