

# Powertec 2x2 Hybrid Combiner, 698 to 3800 MHz, 4.3-10 Female, -155 dBc

SKU: IBC-PT-00052

MPN: PCM-HY2-6938.432

Barcode: 9337692001895

## Description

Hybrid Couplers are used to develop advanced RF transmission systems where interaction-free signal combining is required. 2x2 couplers are typically used as an effective means of combining two radio carriers. The unit has two input ports which feed two coupled output ports.

This 2x2 Hybrid Coupler has been developed for use as a 4G-5G MNC in passive in-building coverage systems, along with supporting high powered defence and aerospace technologies. The unit supports a wide frequency range from 700 to 3800 MHz, extremely low intermodulation with a -155 dBc PIM rating, and using 5G-compatible 4.3-10 connectors.

With an IP67 ingress protection rating the power divider can be used indoors or outdoors. It's integrated mounting bracket provides for wall or surface mounting.

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Powertec's hybrid couplers have been custom developed to support all major 4G LTE bands along with the extended 5G "mid-band", with full n78 3.5 GHz band covered.



# RF Specification

|                   |          |                   |          |
|-------------------|----------|-------------------|----------|
| Min. Frequency:   | 698 MHz  | Input Impedance:  | 50       |
| Max. Frequency:   | 3800 MHz | Max. Input Power: | 300 W    |
| Coupling / Split: | 3 dB     | PIM, 3rd Order:   | -155 dBc |

## Port Matrix

| Port Label | Port Function | RF Interface  |
|------------|---------------|---------------|
| IN1        | Input         | 4.3-10 Female |
| IN2        | Input         | 4.3-10 Female |
| OUT1       | Coupled       | 4.3-10 Female |
| OUT2       | Coupled       | 4.3-10 Female |

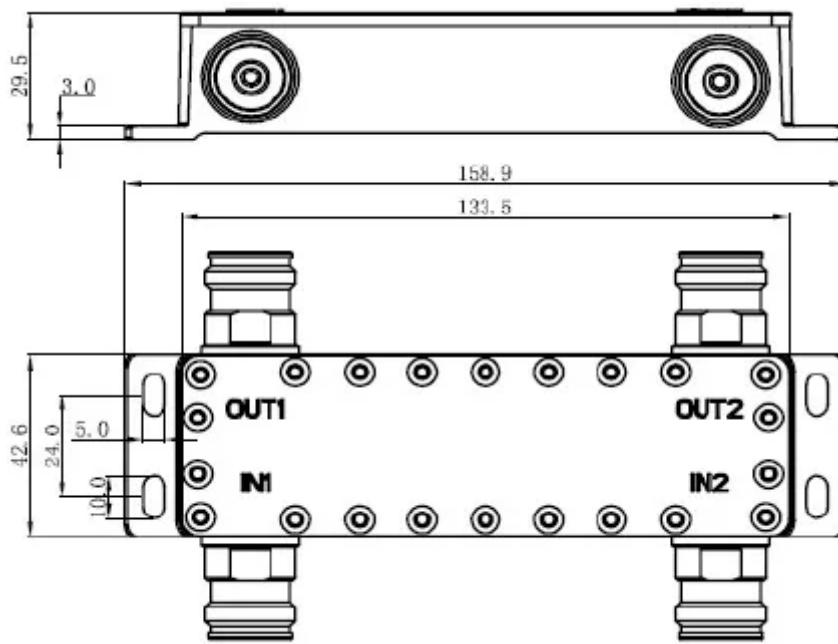
## Frequency Test Data

| Start Frequency | Stop Frequency | VSWR     | Insertion Loss | Inter-Port Iso. |
|-----------------|----------------|----------|----------------|-----------------|
| 698 MHz         | 3800 MHz       | < 1.25:1 | 0.2 dB         | > 25 dB         |

# Physical Specification

|                     |                  |                             |                             |
|---------------------|------------------|-----------------------------|-----------------------------|
| Input Ports:        | 2                | Materials:                  | Aluminium                   |
| Output Ports:       | 2                | Mounting:                   | Screw / Bolt                |
| Subtype:            | Hybrid Coupler   | Min. Operating Temperature: | -40 °C                      |
| Ingress Protection: | IP67             | Max. Operating Temperature: | 65 °C                       |
| Dimensions:         | 159 x 102 x 29.5 | Compliance/Certifications:  | ISO 9001 Quality Management |
| Weight:             | 0.5 kg           | RoHS                        |                             |

# Drawing



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