

## 3 dB Hybrid Coupler RK3-544P-6G

MTS-No.: 25655

### Description

The 3 dB Hybrid Couplers of this series are designed to work at frequency ranges between 700 MHz and 6000 MHz. They cover for example GSM, DECT, UMTS, Bluetooth, WiMAX, Wi-Fi (2.4G / 5G) and all LTE frequency bands.

The multisection stripline design exhibits very good isolation, amplitude balance and VSWR at all ports.



### Technical data:

#### 1 RF-specifications:

1.1 Coupler type	RK3, 3 dB		
1.2 Impedance	50 $\Omega$		
1.3 Input power	50 W max.		
1.4 Frequency range	700 - 6000 MHz		
	<b>min.</b>	<b>typ.</b>	<b>max.</b>
1.5 VSWR (at all ports)		1.1	1.25
1.6 Insertion loss / Coupling (+3 dB)		0.4 dB	0.8 dB
1.7 Isolation	21 dB	26 dB	
1.8 Amplitude balance		$\pm 0.4$ dB	$\pm 0.8$ dB
1.9 Phase balance (90°)		$\pm 1^\circ$	$\pm 4^\circ$

#### 2 Connections:

2.1 RF-in- and outputs	4x SMA female (4x N female available @ MTS-No.: 25656)
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#### 3 General specifications:

3.1 Operating temperature	-55 °C - +75 °C
3.2 Reference temperature for specifications	+25 °C
3.3 Dimensions (without connections)	75 mm x 35 mm x 17 mm (LxWxH)
3.4 Case style	Milled aluminium enclosure
3.5 Colour	SurTec650 (Chrome alloy)
3.6 Weight	135 grams

#### 4 Delivered parts:

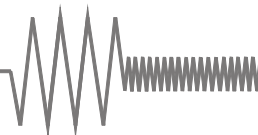
RK3-544P-6G  
Datasheet

#### 5 Comments:

Warranty	12 months
RoHS-compliant	Yes

#### 6 Recommended accessories:

RF-cables  
Attenuators series PAH



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#### Typical measurements:

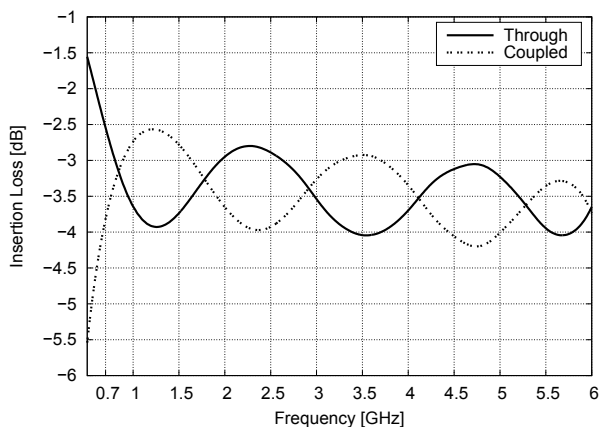


Fig. 1: Through and coupled line insertion loss

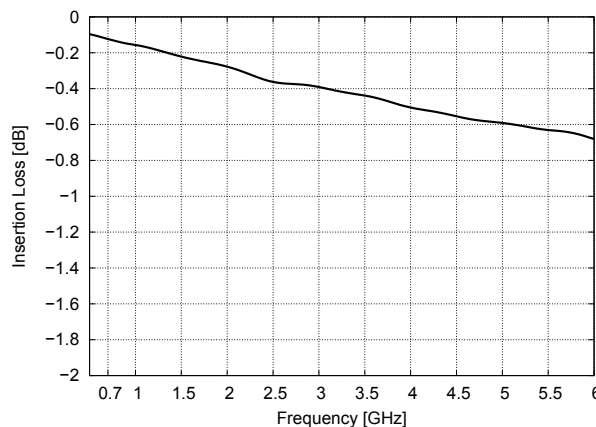


Fig. 2: Through plus coupled line insertion loss

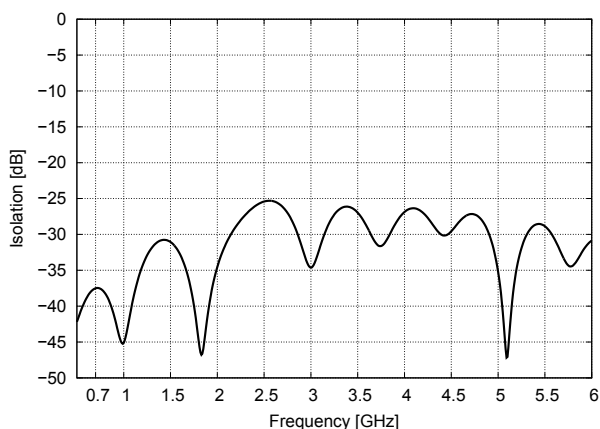


Fig. 3: Isolation between output ports

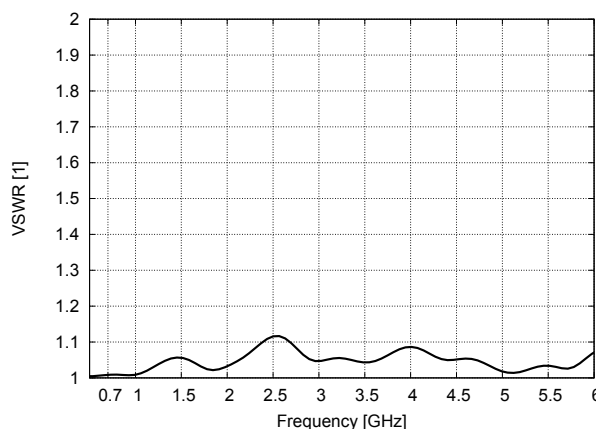


Fig. 4: VSWR at all ports

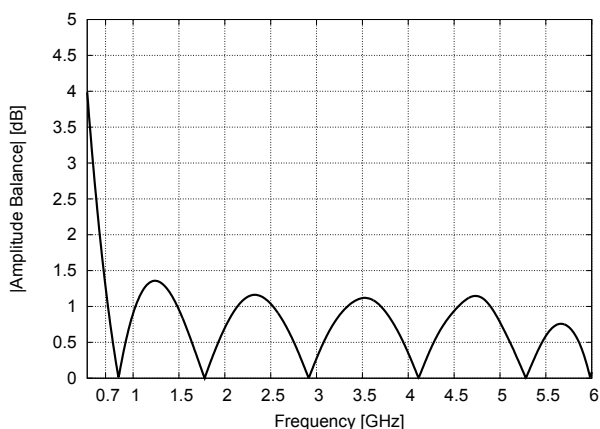


Fig. 5: Amplitude balance between output ports

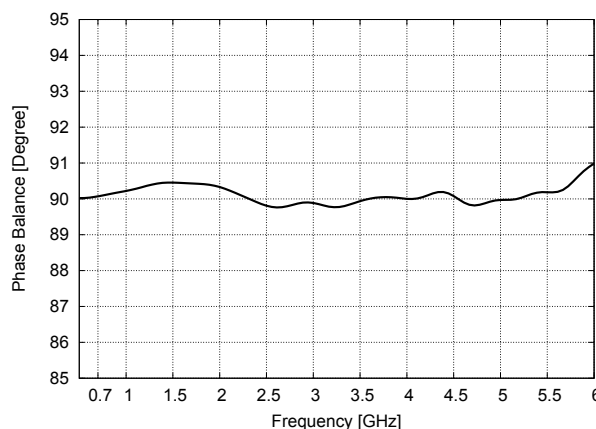
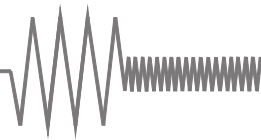


Fig. 6: Phase balance between output ports



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Port configuration:

Input	IN	ISO	-3 dB / 0°	-3 dB / 90°
IN	---	ISOLATION	-3 dB / 0°	-3 dB / 90°
ISO	ISOLATION	---	-3 dB / 90°	-3 dB / 0°
-3 dB / 0°	-3 dB / 0°	-3 dB / 90°	---	ISOLATION
-3 dB / 90°	-3 dB / 90°	-3 dB / 0°	ISOLATION	---

Views:

