A KYOCERA GROUP COMPAN

GENERAL DESCRIPTION ITF TECHNOLOGY

The ITF SMD 3dB 90° Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The ITF 3dB 90° Coupler is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



ELECTRICAL PARAMETERS*

Part Number**	Frequency FO [MHz]	I. Loss @ F _o [dB]	Phase Balance [deg] max.	Code Letter Marking
DB0805A0870ASTR	870±70	0.4	3	Y
DB0805A0880ASTR	880±30	0.35	3	Y
DB0805A0915ASTR	915±30	0.35	3	V
DB0805A0967ASTR	967±30	0.35	3	V
DB0805A1176ASTR	1176±13	0.2	3	G
DB0805A1350ASTR	1350±50	0.35	3	С
DB0805A1376ASTR	1376±211	0.6	8	G
DB0805A1650ASTR	1650±50	0.35	3	F
DB0805A1800ASTR	1800±50	0.30	3	F
DB0805A1850ASTR	1850±50	0.30	3	К
DB0805A1900ASTR	1900±50	0.30	3	К
DB0805A1950ASTR	1950±50	0.25	3	К
DB0805A2140ASTR	2140±50	0.25	3	L
DB0805A2325ASTR	2325±50	0.25	3	Т

*With Recommended Pad Layout

NOTE: Additional Frequencies Available Upon Request

APPLICATIONS

DIMENSIONS:

L

w

т

Α

В

millimeters (inches)

 Balanced Amplifiers and Signal Distribution in Mobile Communications

2.03±0.10

(0.080±0.004)

1.55±0.10

(0.061±0.004) 0.98±0.15

(0.037±0.006) 0.56±0.25

(0.022±0.010) 0.35±0.15

(0.014±0.006)

FEATURES

- Miniature 0805 size
- Low I. Loss
- High Isolation
- Power Handling: 10W RF CW
- Surface Mountable
- Supplied on Tape & Reel
- Operating Temperature -40°C to +85°C

BOTTOM VIEW



TERMINALS (TOP VIEW) ORIENTATION IN TAPE



**LEAD FREE TERMINATION PART NUMBERS: DB0805AXXXXASTR







063021



870 ± 13MHZ DB0805A0870ASTR









880 ± 30MHZ DB0805A0880ASTR







915 ± 30MHZ DB0805A0915ASTR





967± 30MHZ DB0805A0967ASTR







11760 ± 13MHZ DB0805A176ASTR (L1 BAND)









1350 ± 50MHZ DB0805A1350ASTR







1376 ± 210 MHZ DB0805A1376ASTR (L5 BAND)









1650 ± 50MHZ DB0805A1650ASTR







1800 ± 50MHZ DB0805A1800ASTR





1850 ± 50MHZ DB0805A1850ASTR



Frequency (MHz)





1900 ± 50MHZ DB0805A1900ASTR



110



1950 ± 50MHZ DB0805A1950ASTR







2140 ± 50MHZ DB0805A2140ASTR





2325 ± 50MHZ DB0805A2325ASTR







GENERAL DESCRIPTION

These jigs are designed for testing the DB0805 3dB 90° Couplers using a Vector Network Analyzer.

They consist of a dielectric substrate, having 50Ω microstrips as conducting lines and a bottom ground plane located at a distance of 0.254mm from the microstrips.

The substrate used is Neltec's NH9338ST0254C1BC.

The connectors are SMA type (female), 'Johnson Components Inc.' Product

non-metallic stick until all four ports touch the appropriate pads.

Set the VNA to the relevant frequency band. Connect the VNA using a 10dB attenuator on the jig terminal connected to port 2. Follow the VNA's instruction manual and use the calibration jwwig to perform a full 2-port calibration in the required bandwidths.

P/N: 142-0701-841.

Both a measurement jig and a calibration jig are provided.

The calibration jig is designed for a full 2-port calibration, and consists of an open line, short line and through line. LOAD calibration can be done by a 50Ω SMA termination.

MEASUREMENT PROCEDURE

Output 2 (Coupler) ♦ Connector 4 (Jig)

When measuring a component, it can be either soldered or pressed using a

(Jig)

Place the coupler on the measurement jig a	as follows:
Input (Coupler) Connector 1 (Jig)	Output 1 (Coupler) Connector 3

To managers P. Loss and L. Loss 1 connects

to measure	K.	LOSS	and	I. LOSS	1	connect:	

50Ω (Coupler) Connector 2 (Jig)

Connector 1 (Jig)	۲	Port 1 (VNA)	Со
Connector 2 (Jig)	۲	50Ω	Со

Connector 3 (Jig) ♦ Port 2 (VNA) Connector 4 (Jig) ♦ 50Ω

To measure R. Loss and I. Loss 2 connect:

Connector 1 (Jig) 🖡	Port 1 (VNA)	Connector 3 (Jig) 🖡	50Ω
Connector 2 (Jig) 🖡	50Ω	Connector 4 (Jig) ♦	Port 2 (VNA)

To measure Isolation connect:

Connector 1 (Jig) 🖡 5	ΩΟί	Connector 3 (Jig) 🖡	Port 1 (VNA)
Connector 2 (Jig) 🖡 5	ΟΟ	Connector 4 (Jig) 🖡	Port 2 (VNA)



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Kyocera AVX:

DB0805A0915AWTR DB0805A2550AWTR DB0805A1900AWTR DB0805A1542ASTR DB0805A0915AWTR\500 DB0805A0850AWTR DB0805A0880AWTR DB0805A0900AWTR DB0805A0920AWTR DB0805A0967AWTR DB0805A0967AWTR\500 DB0805A1350AWTR DB0805A1452AWTR DB0805A1542AWTR DB0805A1575AWTR DB0805A1650AWTR DB0805A1800AWTR DB0805A1840AWTR DB0805A1850AWTR DB0805A1920AWTR DB0805A1950AWTR DB0805A1960AWTR DB0805A2140AWTR DB0805A2250AWTR DB0805A2325AWTR DB0805A2650AWTR DB0805A2017ASTR DB0805A2017ASTR\500 DB0805A2325ASTR DB0805A1850ASTR\500 DB0805A1850AWTR\500 DB0805A1900ASTR\500 DB0805A1920AWTR\500 DB0805A1950ASTR\500 DB0805A1950AWTR\500 DB0805A1960AWTR\500 DB0805A2140ASTR\500 DB0805A2140AWTR\500 DB0805A2250AWTR\500 DB0805A2325ASTR\500 DB0805A2325AWTR\500 DB0805A2442AWTR\500 DB0805A2640AWTR\500 DB0805A2650AWTR\500 DB0805A0880ASTR DB0805A0900ASTR DB0805A0915ASTR DB0805A0940ASTR DB0805A0967ASTR DB0805A1350ASTR DB0805A1575ASTR DB0805A1650ASTR DB0805A1800ASTR DB0805A1850ASTR DB0805A1900ASTR DB0805A1950ASTR DB0805A2140ASTR DB0805A2442AWTR DB0805A2640AWTR DB0805A0850AWTR\500 DB0805A0880ASTR\500 DB0805A0880AWTR\500 DB0805A0900ASTR\500 DB0805A0900AWTR\500 DB0805A0915ASTR\500 DB0805A0920AWTR\500 DB0805A0940ASTR\500 DB0805A0967ASTR\500 DB0805A1350ASTR\500 DB0805A1350AWTR\500 DB0805A1452AWTR\500 DB0805A1542ASTR\500 DB0805A1542AWTR\500 DB0805A1575ASTR\500 DB0805A1575AWTR\500 DB0805A1650ASTR\500 DB0805A1650AWTR\500 DB0805A1800ASTR\500 DB0805A1800AWTR\500 DB0805A1840AWTR\500