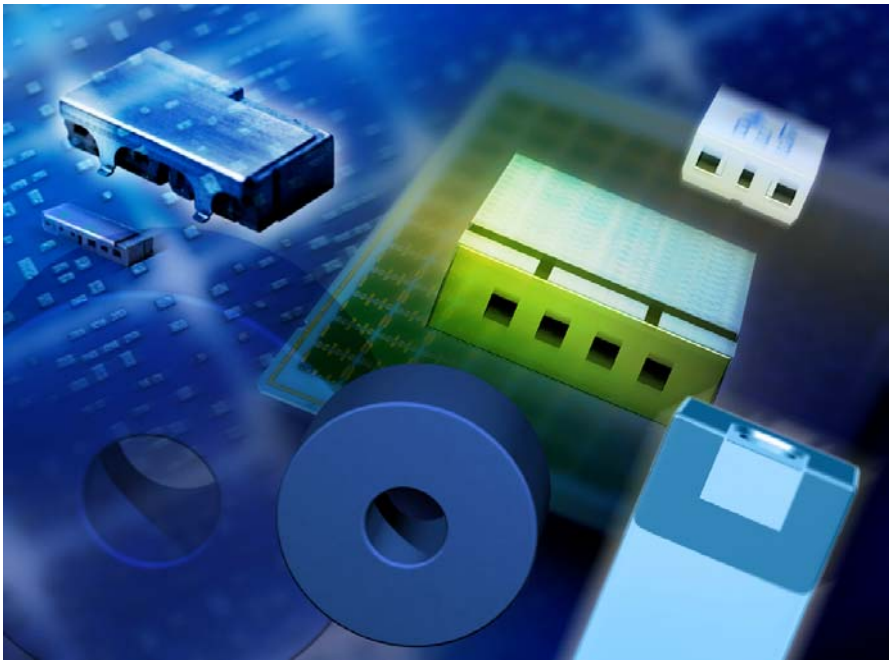
7-Pole Duplexer for WCDMA B69967N2047A760

Preliminary Data Sheet



Features

- SMD duplexer consisting of coupled resonators with stepped impedances
- $Ba(NdSm)TiO_3$ (ε_r = 82 / TC_f =0±10 ppm/K)
- Excellent reflow solderability

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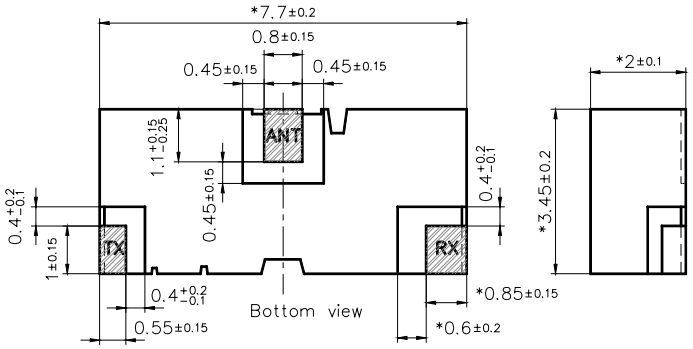
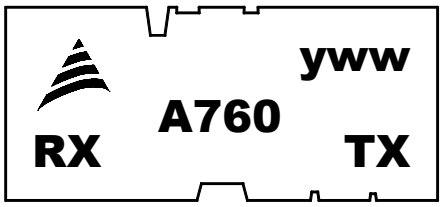
Component drawing



marking

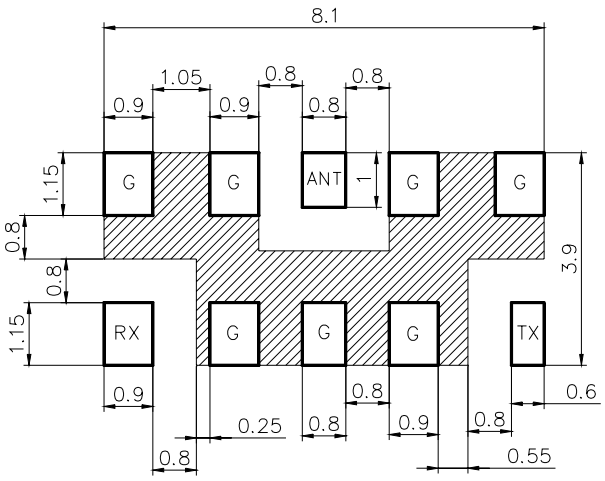


y= calendar year
w= calendar week
e.g.: 427= calendar year 2004, calendar week 27

*depending in final pressing tool

View from below onto the solder terminals and view from beside

Recommended footprint



TX, RX, ANT, G solder pads

ground area below solder resist with vias to second ground layer

I/O — connected to lines with an impedance of 50 Ohm

Standard condition

FR4 material
permitivity : 4.4
preferred thickness : 0.3
Vias: Ø0.3mm / mm²
For other thickness
correlation might be necessary

- will be fixed acc. to final pressing tool

Characteristics Receiver

		min.	typ.	max.	
Center frequency	f_C	-	2140	-	MHz
Insertion loss	α_{IL}		1.3	1.6	dB
Passband	B	60			MHz
Amplitude ripple (peak - peak)	$\Delta\alpha$			0.9	dB
Standing wave ratio	SWR			1.9	
Impedance	Z		50		Ω
Power	P_{avg}			0.8	W
Attenuation	α				
at DC to 1790 MHz		35 *			dB
at 1790 to 1920 MHz		30			dB
at 1920 to 1980 MHz		50			dB
at 1980 to 2025 MHz		20			dB
at 4030 to 4150 MHz		23 *			dB
at 5950 to 6000 MHz		33 *			dB

*depending on final pressing tool and final layout

Characteristics Transmitter

		min.	typ.	max.	
Center frequency	f_C	-	1950	-	MHz
Insertion loss	α_{IL}		1.1	1.4	dB
Passband	B	60			MHz
Amplitude ripple (peak - peak)	$\Delta\alpha$			0.6	dB
Standing wave ratio	SWR			1.8	
Impedance	Z		50		Ω
Power	P_{max}			1.0	W
Attenuation	α				
at DC to 1000 MHz		40			dB
at 2110 to 2170 MHz		42			dB
at 2400 to 2550 MHz		40			dB
at 3840 to 3960 MHz		33 *			dB
at 5760 to 5940 MHz		23 *			dB

*depending on final pressing tool and final layout

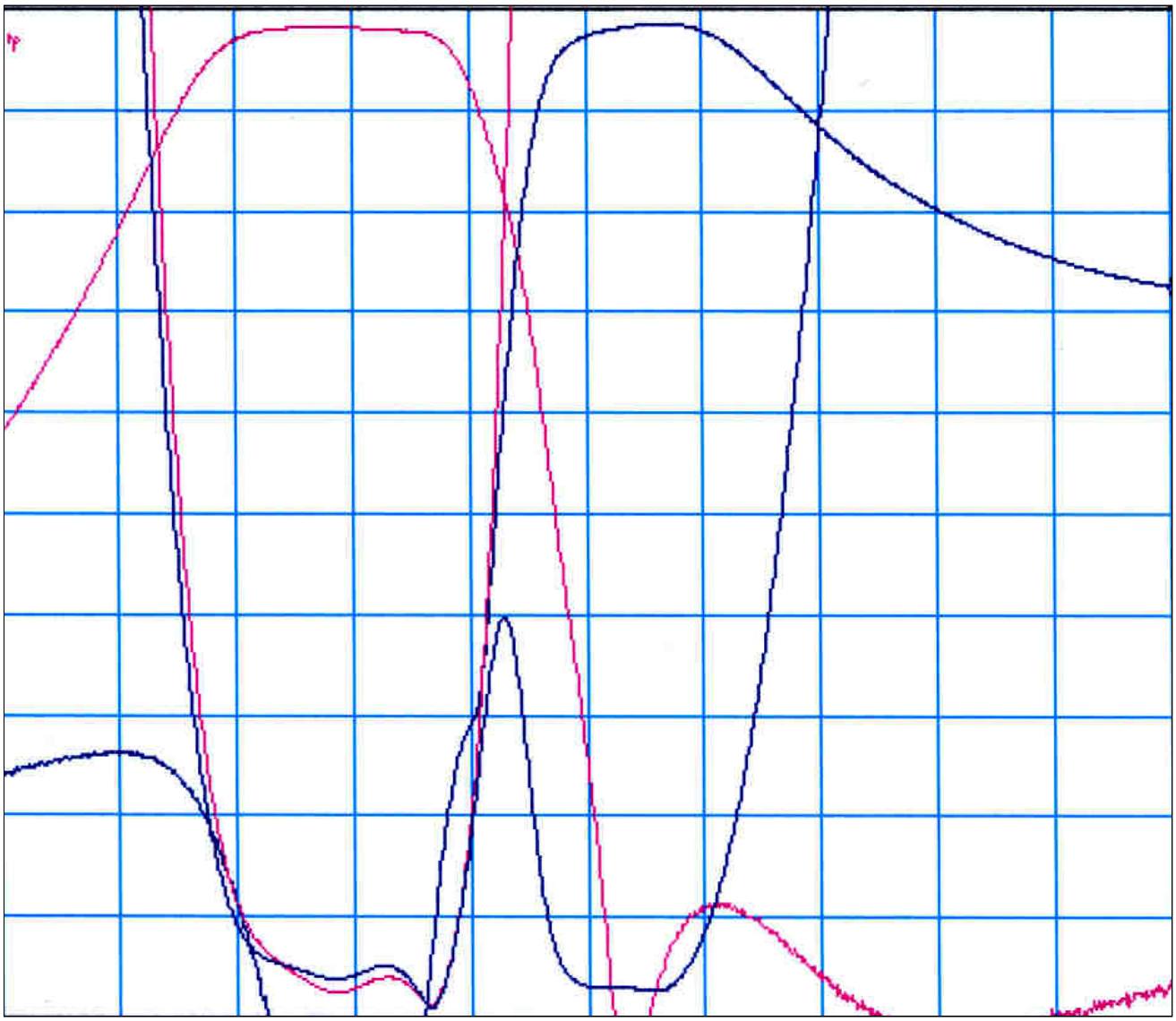
Isolation Tx – Rx

		min.	typ.	max.	
Attenuation	α				
at 1920 to 1980 MHz		50			dB
at 2110 to 2170 MHz		45			dB

Maximum ratings

IEC climatic category (IEC 68-1)		- 40/+ 90/56	
Operating temperature	T_{op}	-40 / +85	°C

Typical passband characteristic



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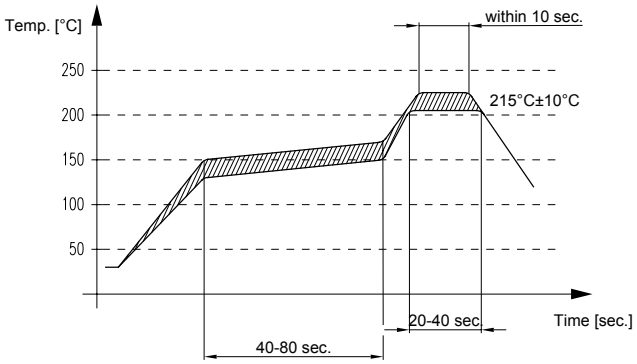
Processing information

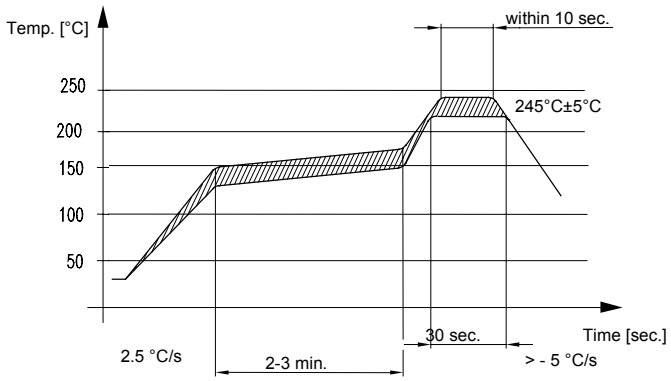
- Wettability to IEC 68-2-58: ≥ 75% (after aging)

Soldering Requirements

	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	°C °C

Recommended soldering conditions (infrared):





Delivery mode

- Blister tape acc. to IEC 286-3, polyester, grey
- Pieces/tape: 3000