



SAW Components

SAW Duplexer

LTE Band 17

Series/type:	B8628
Ordering code:	B39741B8628P810
Date:	June 06, 2014
Version:	2.1

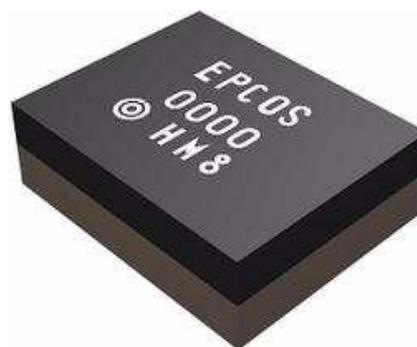
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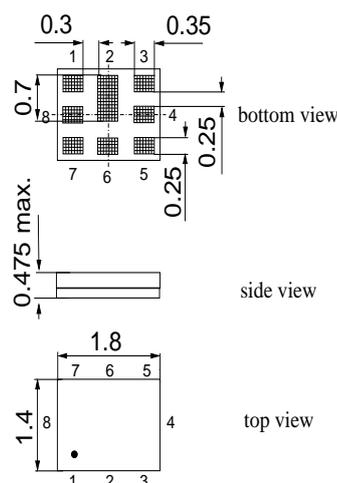
Data sheet

Application

- Low-loss SAW duplexer for mobile telephone LTE Band 17 systems
- High attenuation
- Low amplitude ripple
- Usable passband 12 MHz
- Single-ended duplexer
- Very small size and low height


Features

- Package size 1.8 * 1.4 mm²
- Package height: maximum 0.475 mm
- RoHS compatible
- Package for **Surface Mount Technology (SMT)**
- Ni, Au-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


Pin configuration

- 3 Tx input
- 1 Rx output
- 6 Antenna
- 2, 4, 5, 7, 8 To be grounded

Data sheet


Characteristics

Temperature range for specification:	T = -20 °C to +90 °C
TX terminating impedance:	Z _{Tx} = 50 Ω
ANT terminating impedance:	Z _{Ant} = 50 Ω 15 nH
RX terminating impedance:	Z _{Rx} = 50Ω

		B8628			
Characteristics Tx-Antenna		min.	typ. @ 25 °C	max.	
Center frequency	f _c	-	710	-	MHz
Maximum insertion attenuation	α				
	704.34 ... 715.66 MHz	-	1.6	2.3	dB
Amplitude ripple (p-p)	Δα				
	704.34 ... 715.66 MHz	-	0.5	1.1	dB
Input VSWR (Tx port)					
	704.0 ... 716.0 MHz	-	1.4	2.0	
Output VSWR (Ant Port)					
	704.0 ... 716.0 MHz	-	1.5	2.0	

Data sheet


Characteristics

Temperature range for specification:	T = -20 °C to +90 °C
TX terminating impedance:	Z _{Tx} = 50 Ω
ANT terminating impedance:	Z _{Ant} = 50 Ω 15 nH
RX terminating impedance:	Z _{Rx} = 50 Ω

				B8628			
Characteristics Tx-Antenna				min.	typ. @ 25 °C	max.	
Absolute attenuation α							
10.0	...	692.0	MHz	35	44	-	dB
692.0	...	698.0	MHz	2	8	-	dB
722.0	...	728.0	MHz	7 ¹⁾	15	-	dB
729.0	...	734.0	MHz	18	34	-	dB
734.0	...	746.0	MHz	45	62	-	dB
746.0	...	768.0	MHz	35	46	-	dB
768.0	...	805.0	MHz	30	43	-	dB
869.0	...	894.0	MHz	30	43	-	dB
1408.0	...	1432.0	MHz	35	52	-	dB
1559.0	...	1607.0	MHz	50	56	-	dB
1805.0	...	1880.0	MHz	35	51	-	dB
1930.0	...	1990.0	MHz	45	49	-	dB
2110.0	...	2155.0	MHz	42	46	-	dB
2155.0	...	2170.0	MHz	42	46	-	dB
2400.0	...	2497.0	MHz	35	44	-	dB
2816.0	...	2864.0	MHz	35	41	-	dB
4900.0	...	5850.0	MHz	10	16	-	dB

¹⁾ Absolute mean attenuation: Integrated value of attenuation (linear scale) over specified band

Data sheet

Characteristics

Temperature range for specification:	T = -20 °C to +90 °C
TX terminating impedance:	Z _{Tx} = 50 Ω
ANT terminating impedance:	Z _{Ant} = 50 Ω 15nH
RX terminating impedance:	Z _{Rx} = 50Ω

					B8628			
Characteristics Antenna-Rx					min.	typ. @ 25 °C	max.	
Center frequency	f _c				-	740	-	MHz
Maximum insertion attenuation	α	734.34 ... 745.66 MHz			-	1.8	2.3	dB
Amplitude ripple (p-p)	Δα	734.34 ... 745.66 MHz			-	0.6	1.1	dB
Input VSWR (Ant port)		734.0 ... 746.0 MHz			-	1.5	2.0	
Output VSWR (Rx Port)		734.0 ... 746.0 MHz			-	1.5	2.0	
Absolute attenuation	α							
		10.0 ... 704.0 MHz			40	57	-	dB
		704.0 ... 716.0 MHz			50	65	-	dB
		716.0 ... 724.0 MHz			32	45	-	dB
		724.0 ... 726.5 MHz			18	30	-	dB
		726.5 ... 728.0 MHz			10	20	-	dB
		777.0 ... 793.0 MHz			35	40	-	dB
		793.0 ... 805.0 MHz			35	42	-	dB
		805.0 ... 4000.0 MHz			40	45	-	dB
		4000.0 ... 6000.0 MHz			27	32	-	dB

Data sheet

Characteristics

Temperature range for specification:	T = -20 °C to +90 °C
TX terminating impedance:	Z _{Tx} = 50 Ω
ANT terminating impedance:	Z _{Ant} = 50 Ω 15nH
RX terminating impedance:	Z _{Rx} = 50 Ω

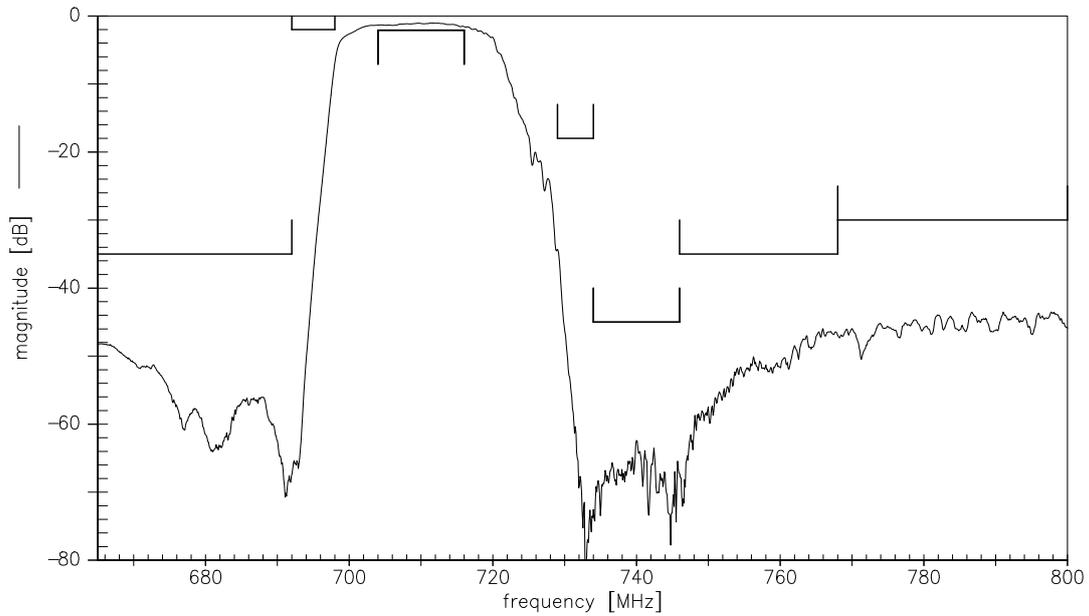
				B8628			
Characteristics Tx-Rx				min.	typ. @ 25 °C	max.	
Isolation			α				
	704.0 ... 716.0	MHz		60	65	-	dB
	734.0 ... 746.0	MHz		58	63	-	dB
	1408.0 ... 1432.0	MHz		30	58	-	dB
	2112.0 ... 2148.0	MHz		30	52	-	dB
	2816.0 ... 2864.0	MHz		30	50	-	dB

Maximum Ratings

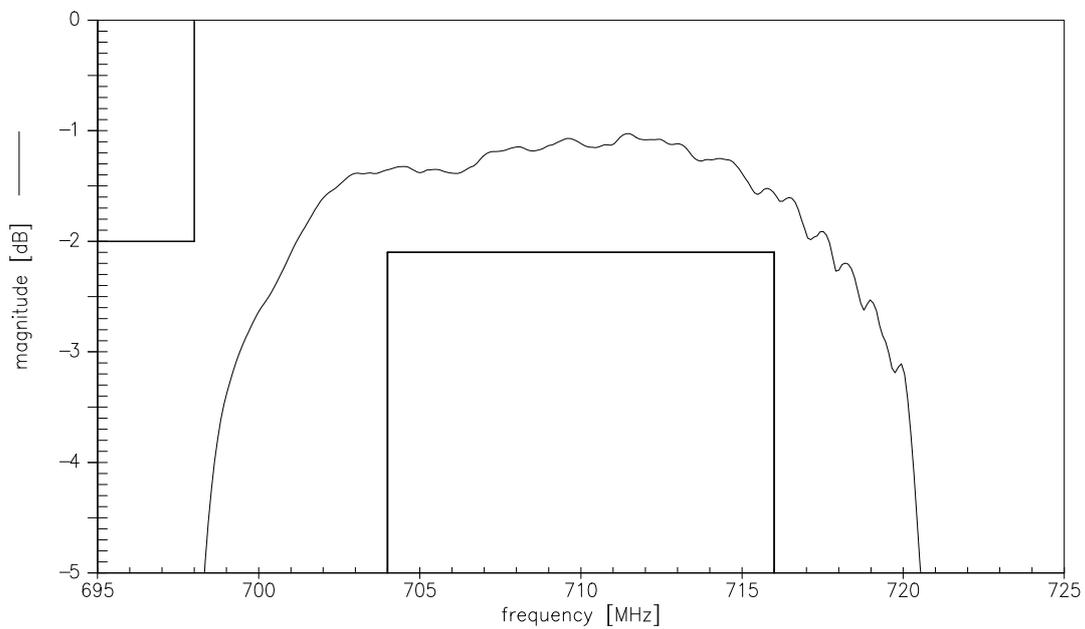
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 1 pulse
Input power at Tx Port				
704.0 ...716.0 MHz	P _{in}	29	dBm	} continuous wave 55 °C, 5000h
elsewhere	P _{in}	10	dBm	

¹⁾ According to JESD22-A115A (machine model), 1 negative and 1 positive pulses.

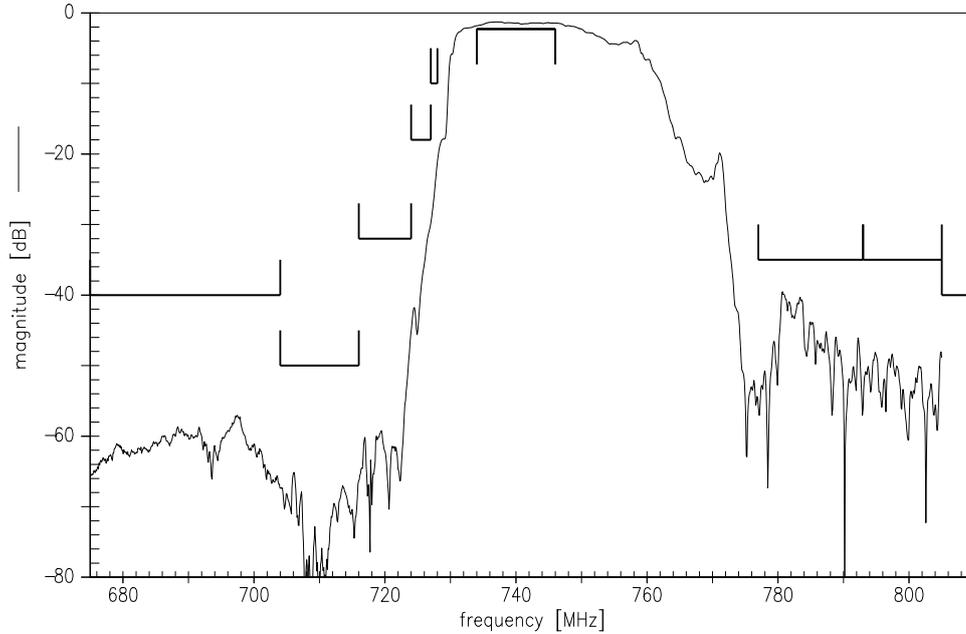
Frequency Response TX-ANT Narrow Band



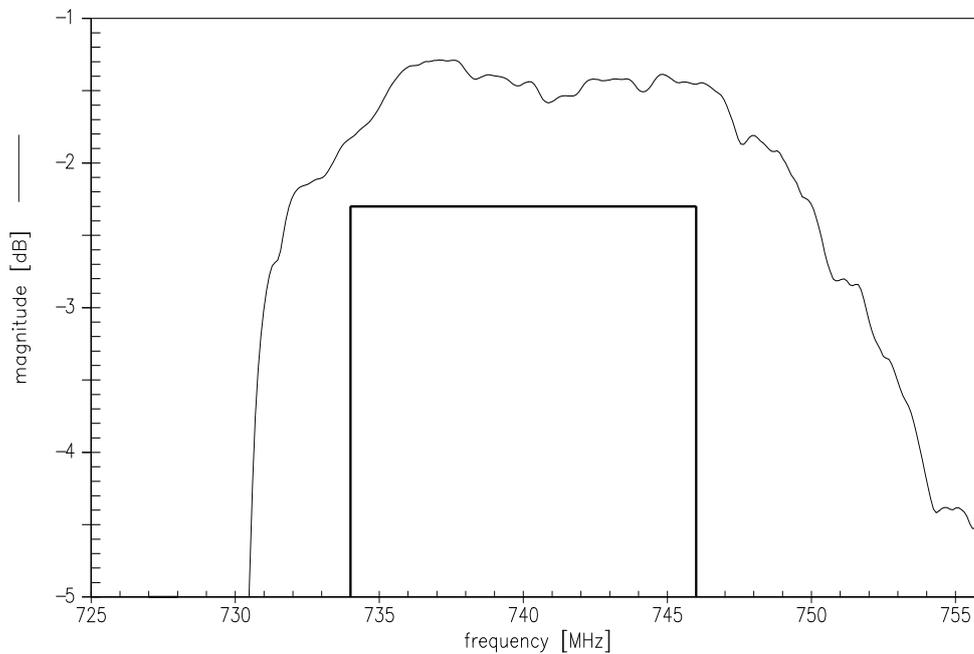
Frequency Response TX-ANT Bandwidth



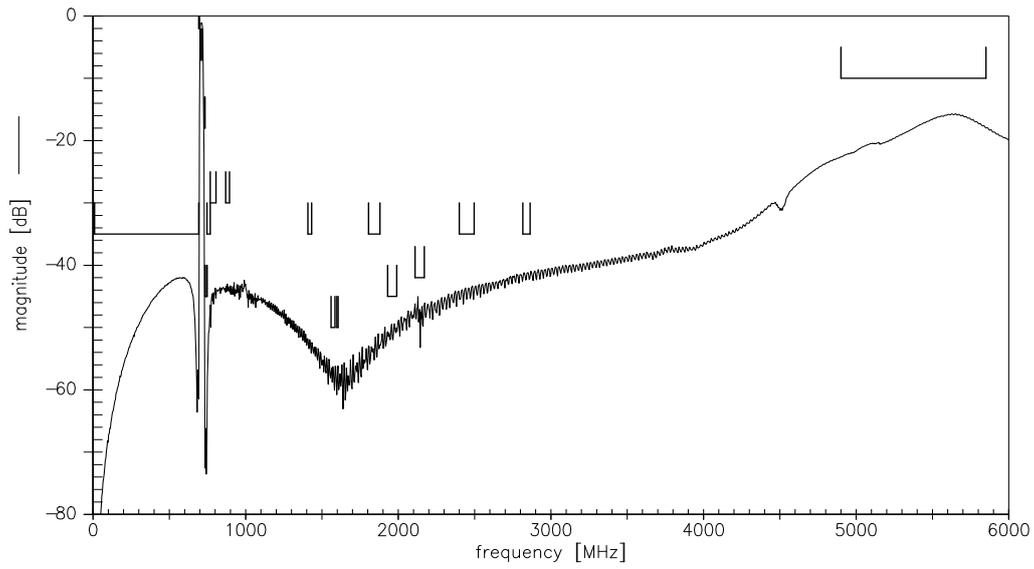
Frequency Response ANT-RX Narrow Band



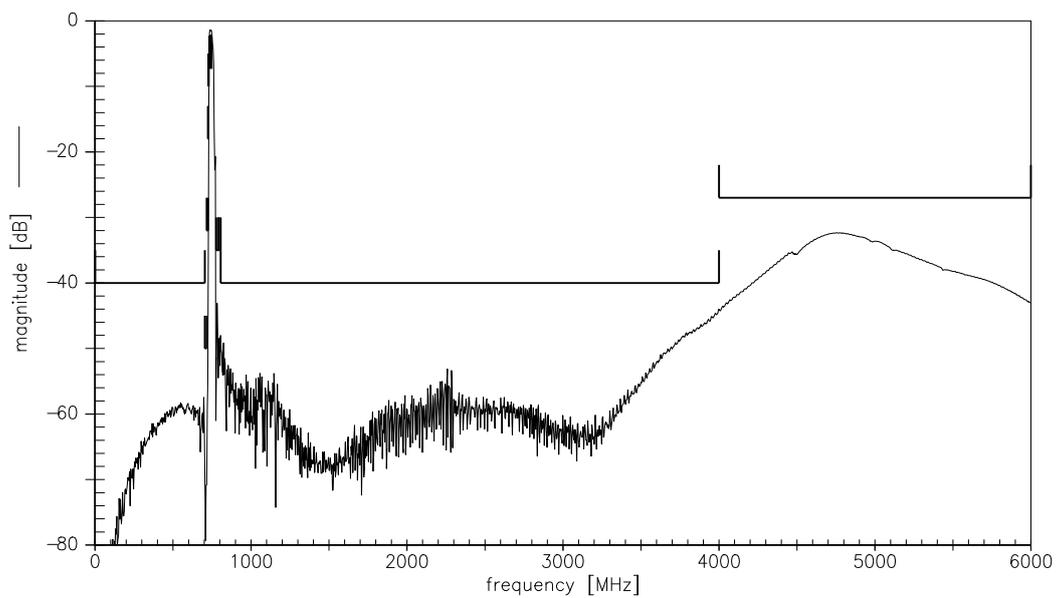
Frequency Response ANT-RX Bandwidth



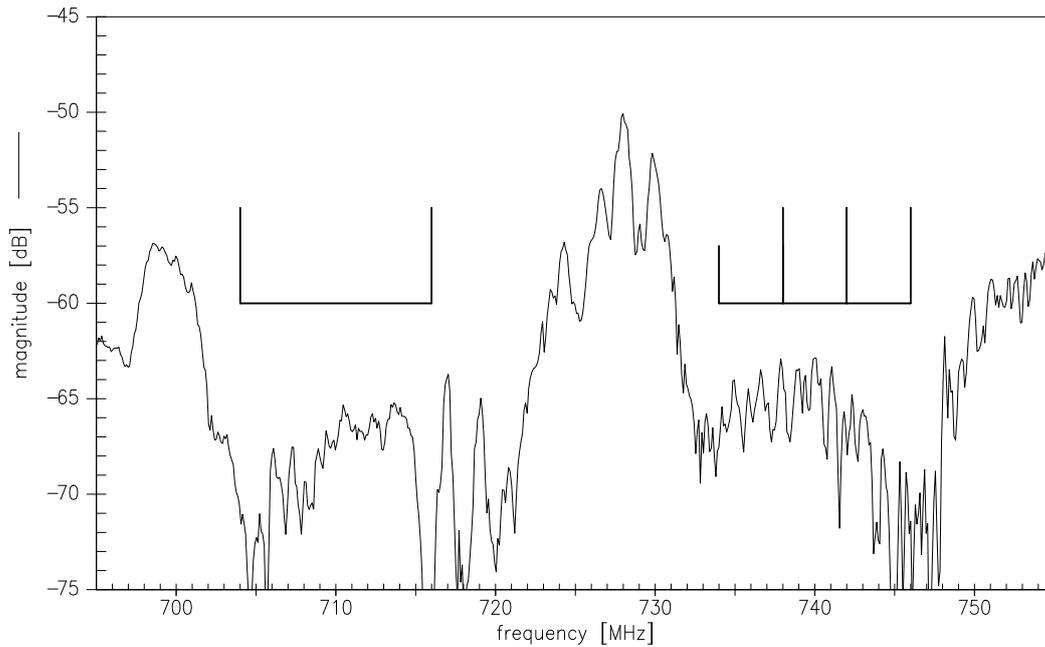
Frequency Response ANT-TX Wide Band



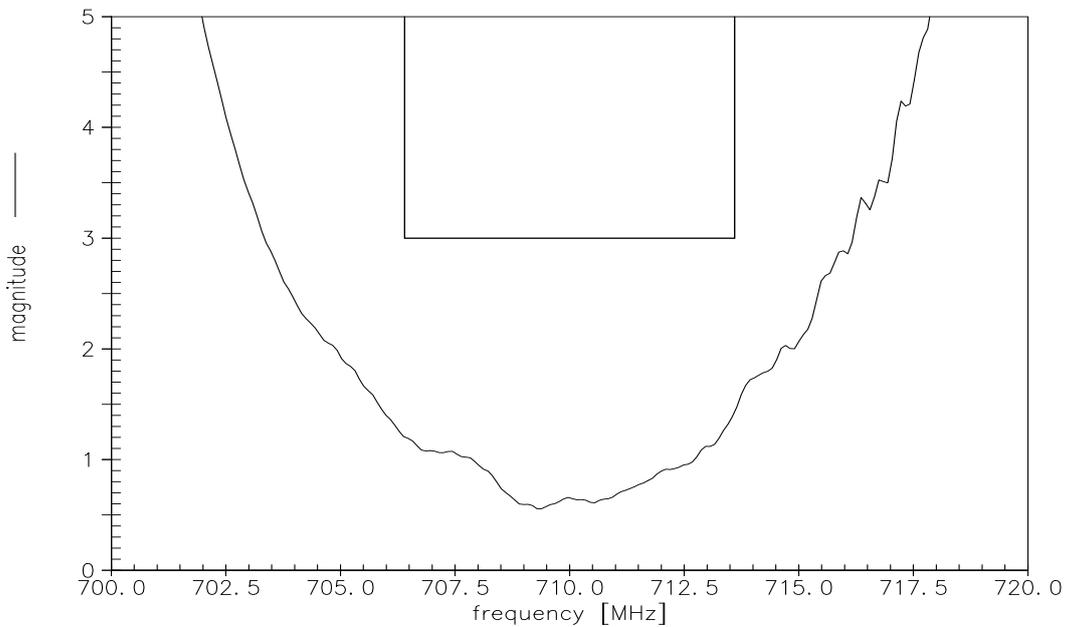
Frequency Response ANT-RX Wide Band



Frequency Response TX-RX : isolation



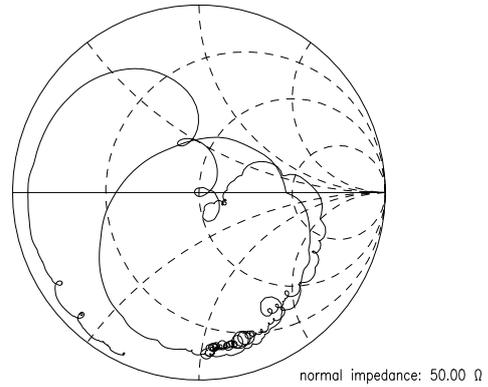
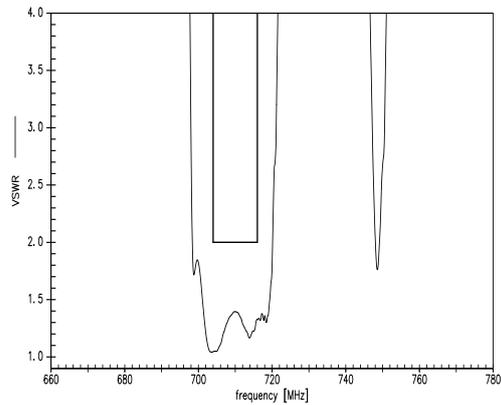
Frequency Response TX : Error Vector Magnitude



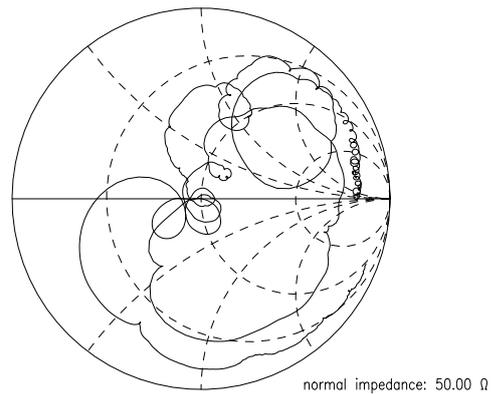
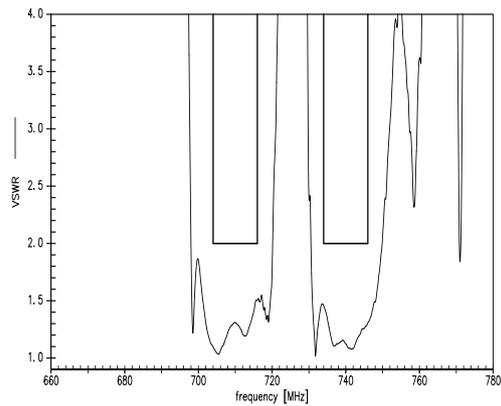
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SMD

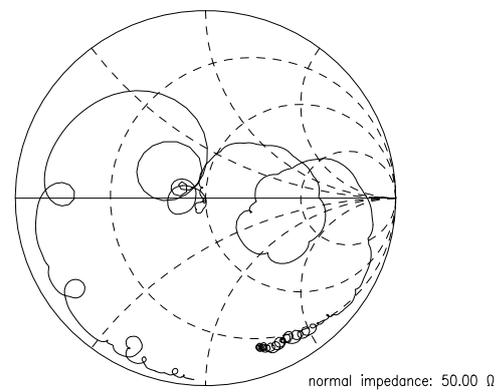
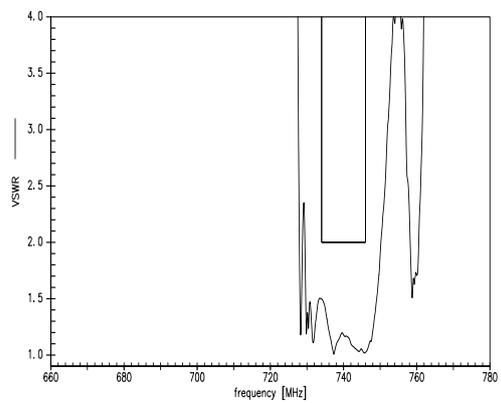
S11 VSWR (TX)



S22 VSWR (ANT)



S33 VSWR (RX)



Please read *cautions and warnings* and *important notes* at the end of this document.

SAW Components	B8628
SAW Duplexer	710.0 / 740.0 MHz

Data sheet



References

Type	B8628
Ordering code	B39741B8628P810
Marking and package	C61157-A8-A57
Packaging	F61074-V8259-Z000
Date codes	L_1126
S-parameters	B8628_NB.s4p B8628_WB.s4p
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8 th , 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
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