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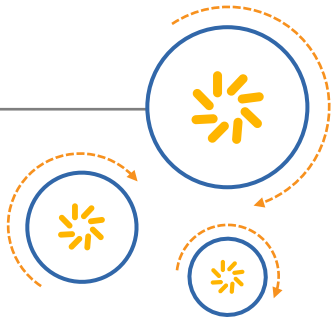

SAW Components

SAW Duplexer

LTE Band 17

Series/type:	B8628
Ordering code:	B39741B8628P810
Date:	May 19, 2015
Version:	2.2

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SAW Components

SAW Duplexer

LTE Band 17

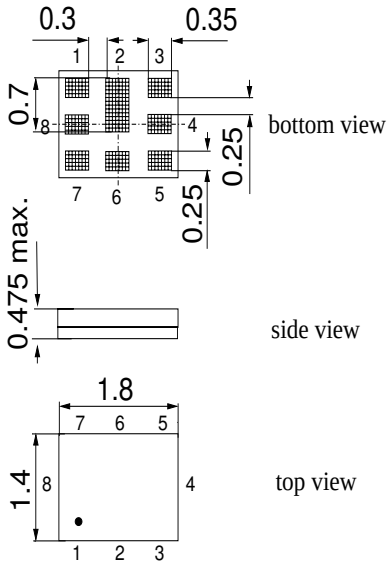
Series/type:	**B8628**
Ordering code:	**B39741B8628P810**
Date:	May 19, 2015
Version:	2.2

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 **S**urface **M**ount **T**echnology (**SMT**)
- Ni, Au-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel 3



Pin configuration

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

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 teminating 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)	$\Delta\alpha$				
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	

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 teminating impedance: Z_{Rx} = 50 Ω

Characteristics Tx-Antenna				B8628 min.	B8628 typ. @ 25 ˚C	B8628 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

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 teminating 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

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 teminating impedance: Z_{Rx} = 50 Ω

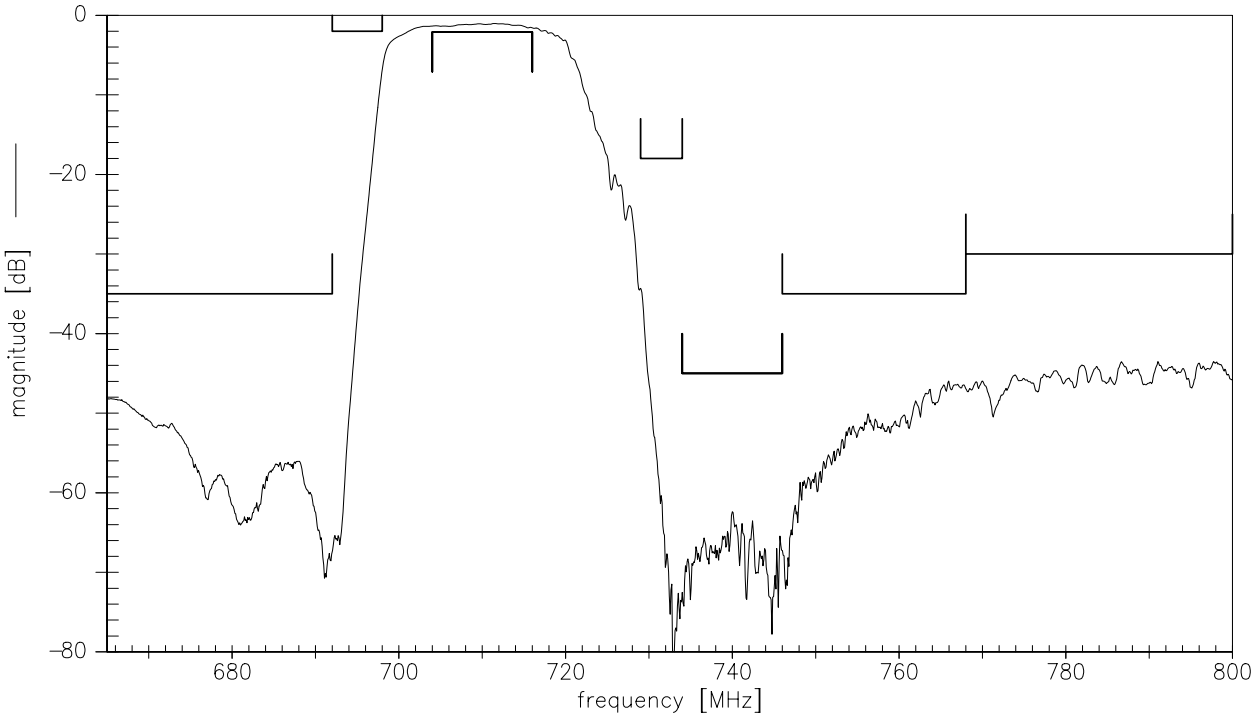
Characteristics Tx-Rx		B8628 min.	B8628 typ. @ 25 ˚C	B8628 max.	
Isolation	α				
704.0 ... 716.0	MHz	60	65	-	dB
734.0 ... 746.0	MHz	58	63	-	dB
1408.0 ... 1432.0	MHz	30	58	-	dB
2112.0 ... 2148.0	MHz	30	52	-	dB
2816.0 ... 2864.0	MHz	30	50	-	dB

Maximum Ratings

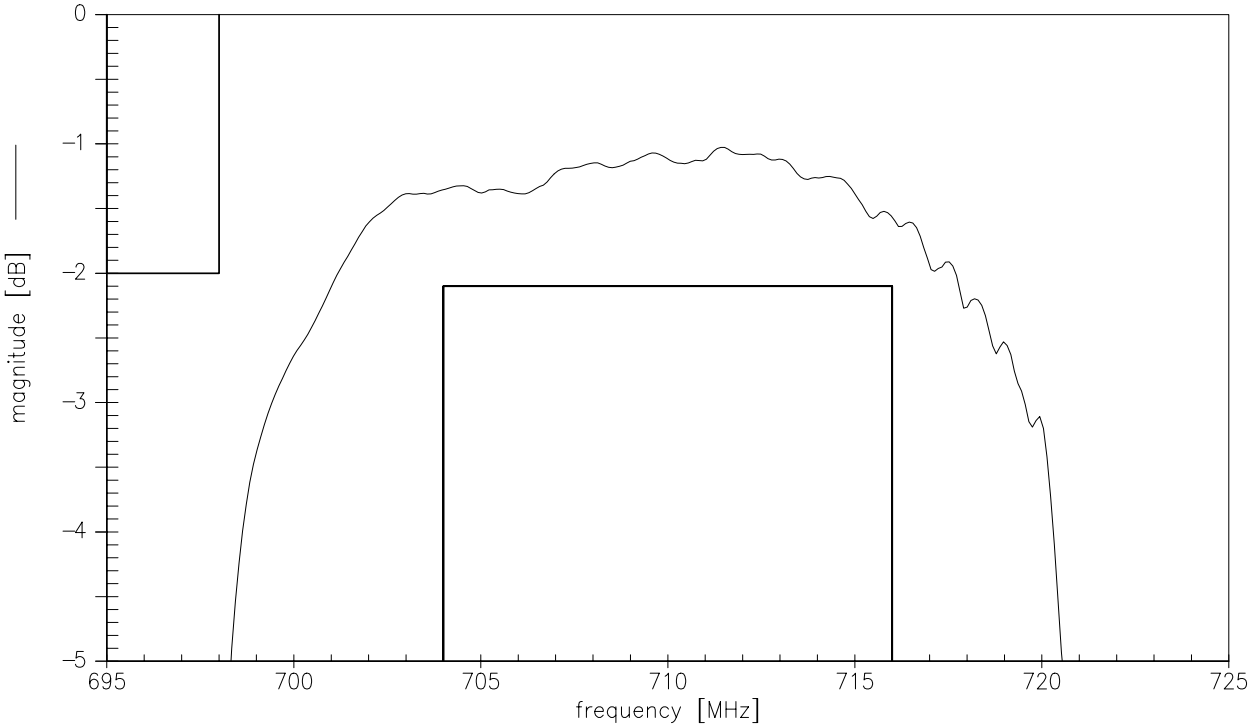
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 1 pulse
Input power at Tx Port				
704.0 ...716.0 MHz	P_{in}	29	dBm	} continuous wave
elsewhere	P_{in}	10	dBm	} 55 ˚C, 5000h

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

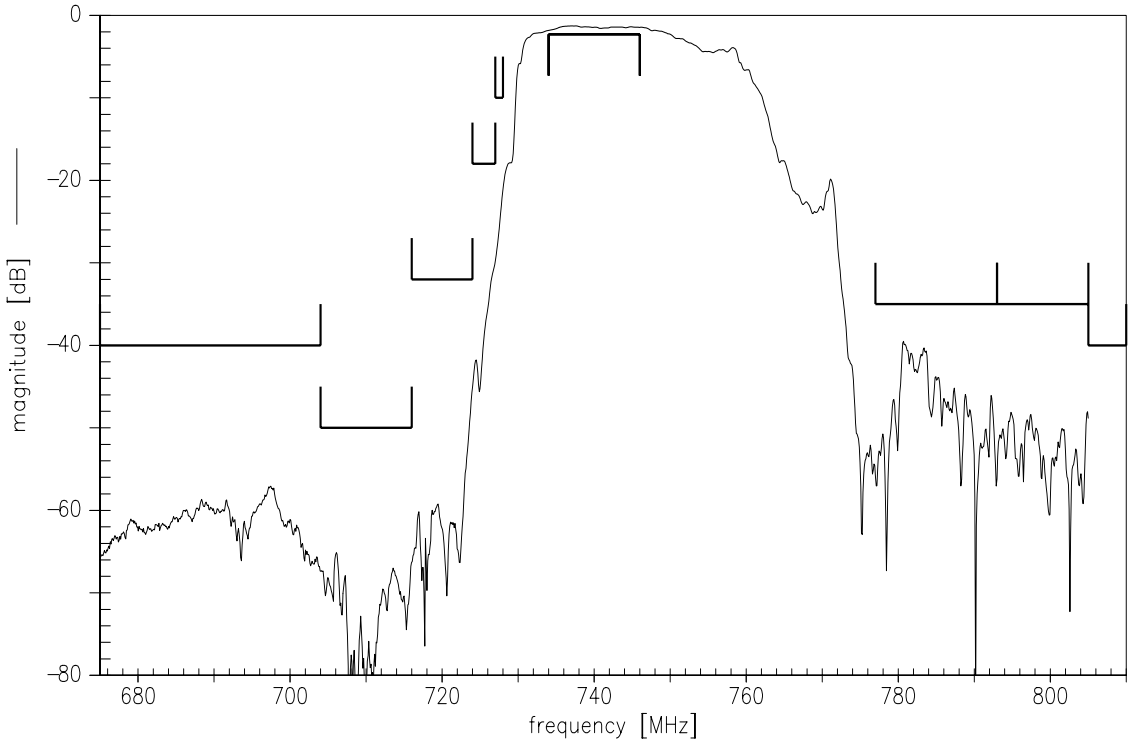
Frequency Response TX-ANT Narrow Band



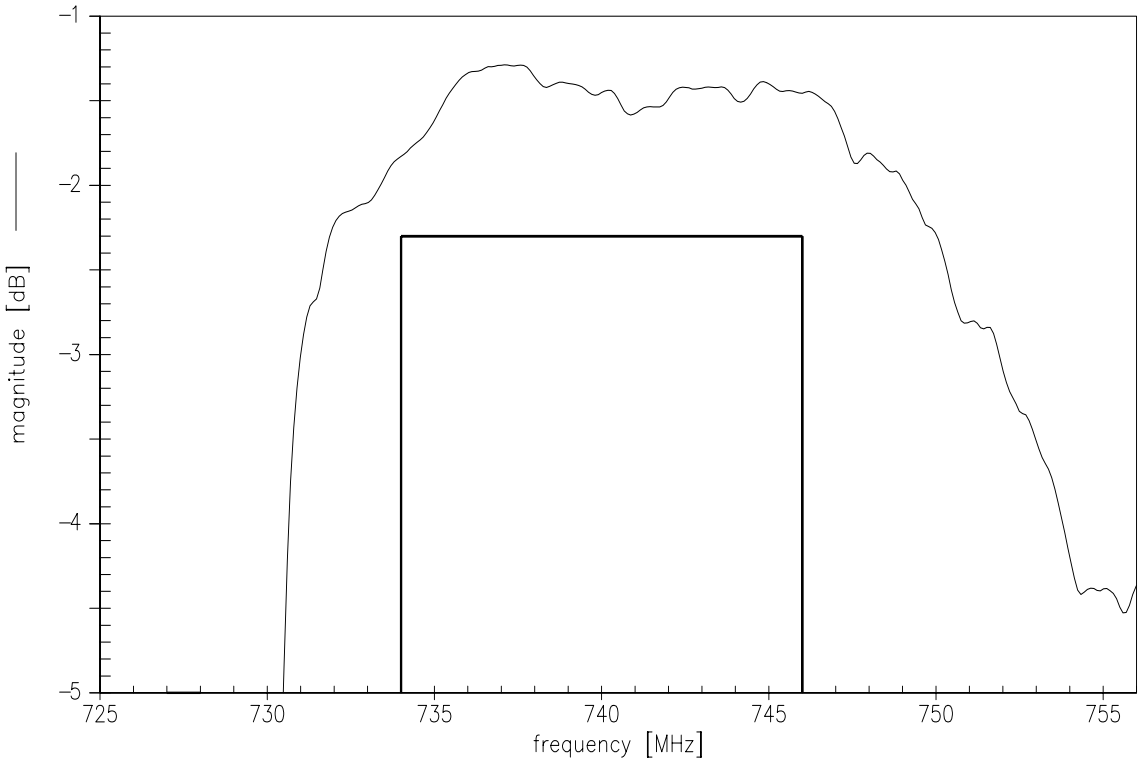
Frequency Response TX-ANT Bandwidth



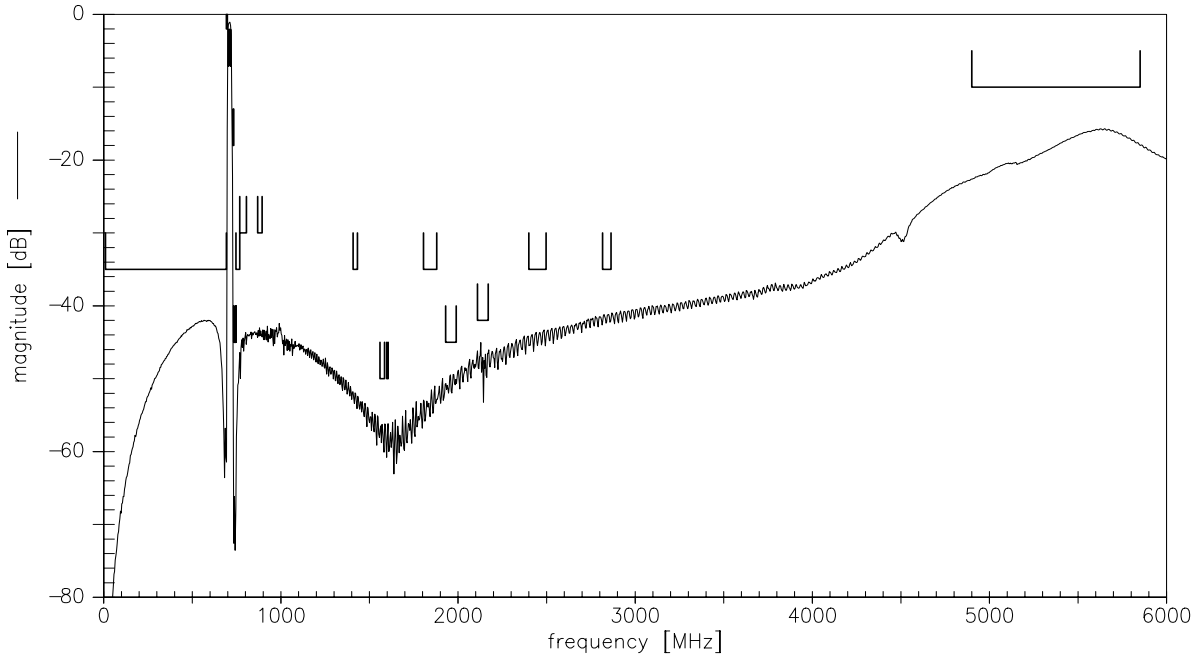
Frequency Response ANT-RX Narrow Band



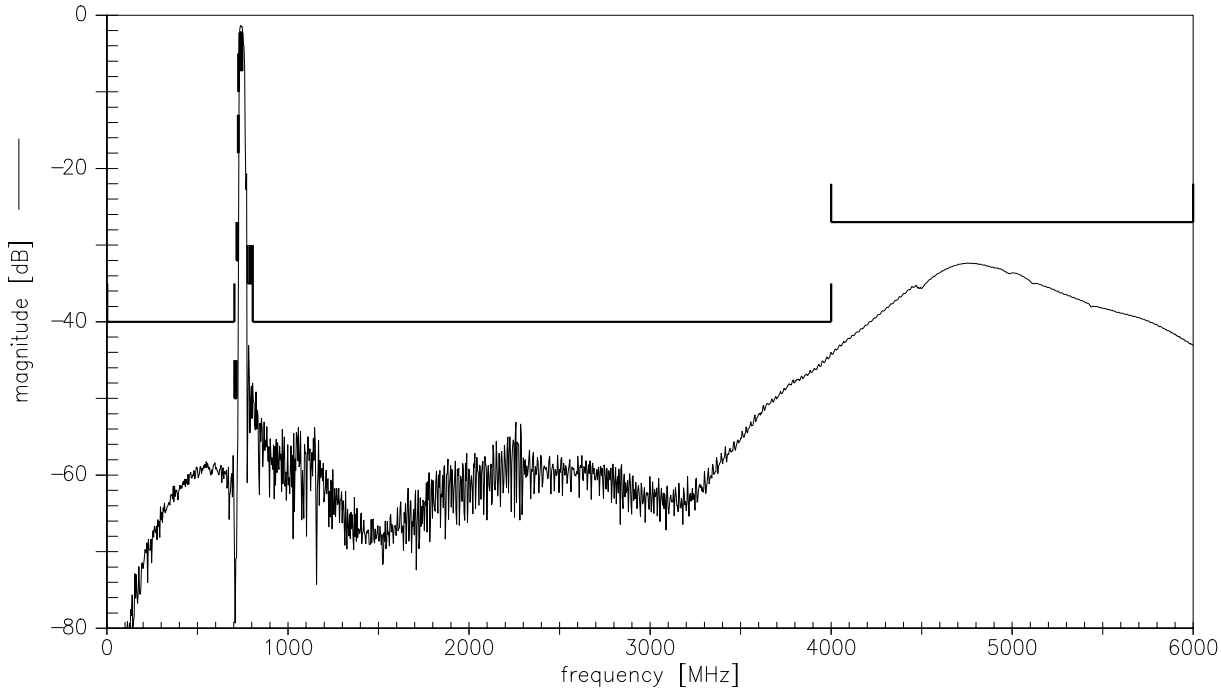
Frequency Response ANT-RX Bandwidth



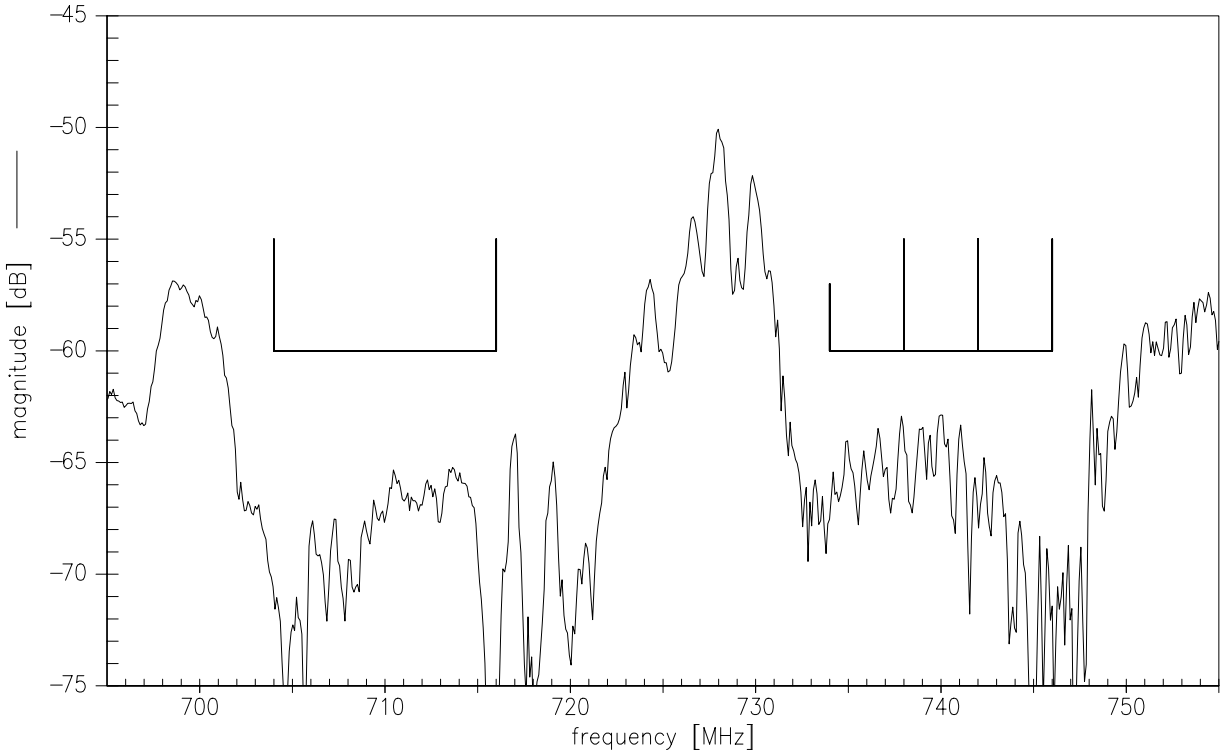
Frequency Response ANT-TX Wide Band



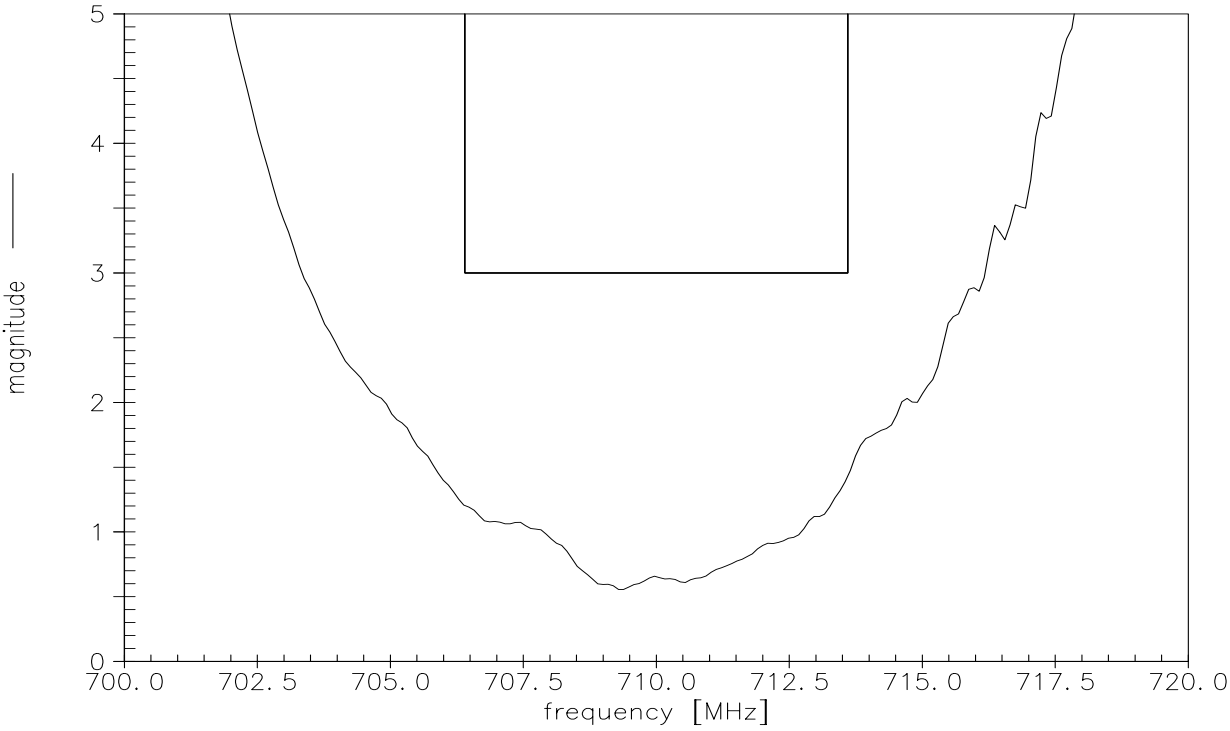
Frequency Response ANT-RX Wide Band



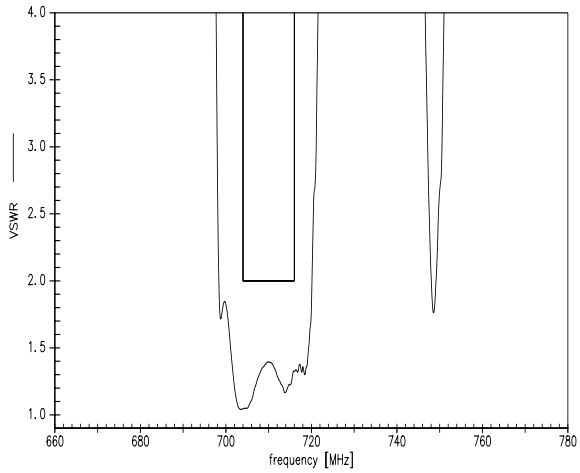
Frequency Response TX-RX : isolation

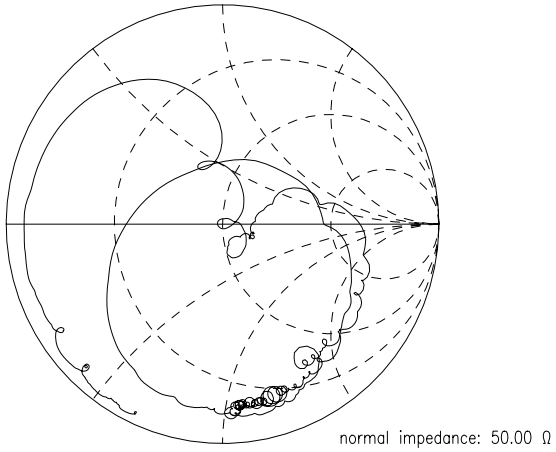


Frequency Response TX : Error Vector Magnitude

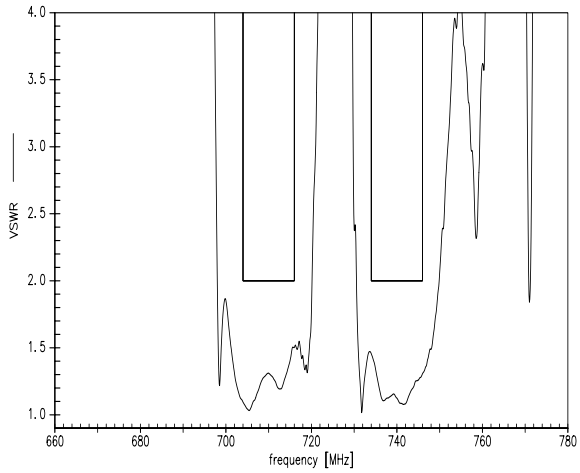


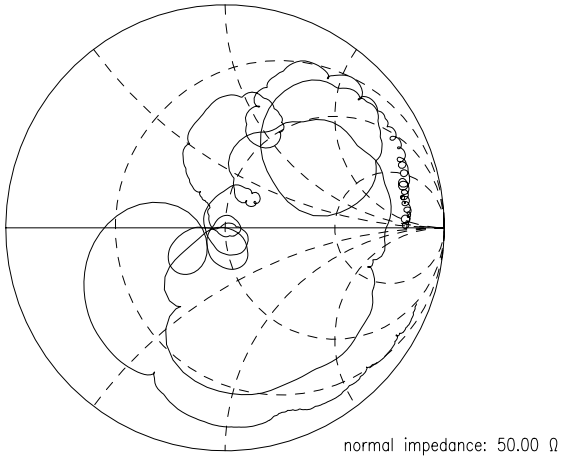
S11 VSWR (TX)



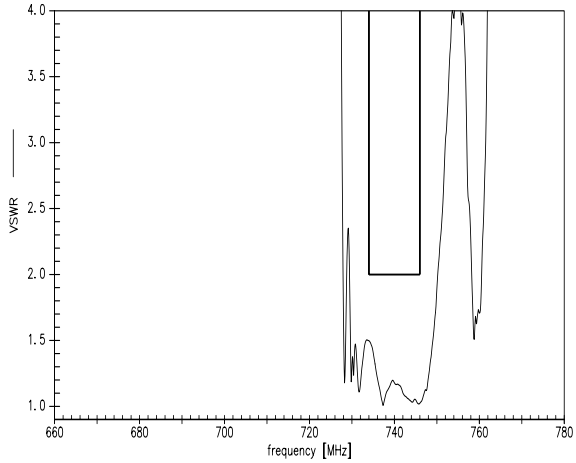


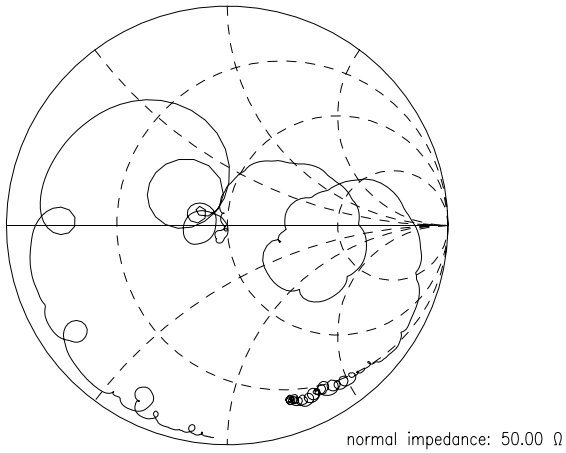
S22 VSWR (ANT)





S33 VSWR (RX)





References

Type	B8628
Ordering code	B39741B8628P810
Marking and package	C61157-A8-A93
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 8th, 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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