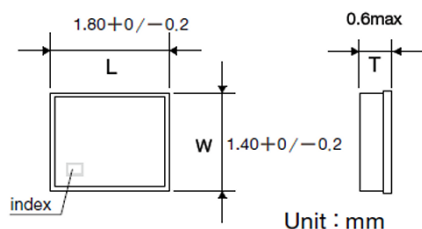


FBAR/SAW Devices (SAW Duplexers)

D6DA1G842K2C4



■ Features

- Item Summary
SAW, Duplexer, 1.8x1.4x0.6mm
Band 3
- Lifecycle Stage
Mass Production
- Standard packaging quantity (minimum)
Taping Embossed 3000, 15000pcs

■ Products characteristics table

System	LTE
Type	SAW
Function	Duplexer
band	Band 3
Insertion Loss (typ) (Tx-ANT/ANT-Rx)	2.3/2.1 dB
Isolation (typ)	56/56 dB
Operating Temp. Range	-20 to +85 °C
RoHS2 Compliance (10 subst.)	Yes
REACH Compliance (173 subst.)	Yes
Halogen Free	Yes
Soldering	Reflow

■ External Dimensions

Dimension L	1.8 + 0/- 0.20 mm
Dimension W	1.4 + 0/- 0.20 mm
Dimension T	Max 0.6 mm

2017.04.30

The data is reference only. Electrical characteristics vary depending on environment or measurement condition.
 TAIYO YUDEN reserves the right to make change to the Date at any time without notice.
 Before making final selection, please check product specification.



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Table 1. Electrical Specification

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min	Typ.	Max			
Tx to Ant	Insertion loss	1710.15~1784.85	-	2.3	3.0	dB(*1)	-20°C~ +65°C	
			-	-	3.3	dB(*1)	+65°C~ +85°C	
	Ripple	1710.15~1784.85	-	1.6	2.8	dB		
	VSWR	1710.15~1784.85	Tx	-	1.4	2.0	-	
			Ant	-	1.4	2.0	-	
	Input Power	1710.15~1784.85	+29dBm, Ta=+50°C 5000h,CW			dBm		
	Absolute attenuation	1559~1586	36	44	-	dB	Compass,GPS	
		1597~1606	33	43	-	dB	GLONASS	
		1805~1880	40	52	-	dB	Rx	
		2400~2500	33	39	-	dB	ISM	
3420~3570		25	32	-	dB	2f0		
5130~5355	20	30	-	dB	3f0			
Ant to Rx	Insertion loss	1805.15 ~1879.85	-	2.1	2.9	dB(*1)	0°C~ +85°C	
			-	-	3.3	dB(*1)	-20°C~ 0°C	
	Ripple	1805.15 ~1879.85	-	1.4	2.8	dB		
	VSWR	1805.15 ~1879.85	Ant	-	1.6	2.3	-	
			Rx	-	1.5	2.2	-	
	Absolute attenuation	1710~1785	50	54	-	dB	Tx	
2400~2500		42	45	-	dB	ISM		
3610~3760		47	57	-	dB	2f0		
5415~5640		42	49	-	dB	3f0		
Tx to Rx	Isolation	1710.15~1784.85	50	56	-	dB	Tx	
		1805.15 ~1879.85	46	-	-	dB	Rx -20°C~ 0°C	
			50	56	-	dB	Rx +0°C~ +85°C	
Terminating Impedance	Tx port	50 //10nH			Ω			
	Rx port	50 //12nH			Ω			
	Ant port	50 //4.3nH			Ω			
Operating Temperature		-20 to +85			°C			
Maximum DC in all ports		-	-	3	VDC			
DC impedance to ground		100			MΩ	Device only		
Device size (L typ. x W typ. x H max.)		1.8 x 1.4 x 0.6			mm			

(*1) Specification of insertion loss excludes loss that comes from the test board.

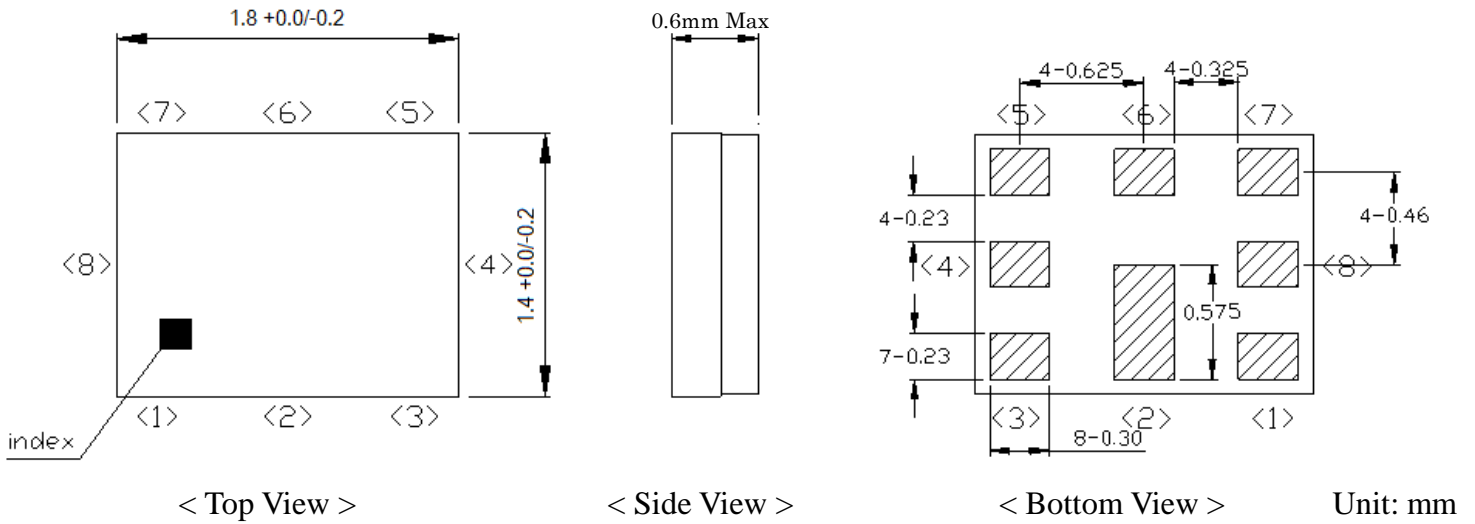


MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1fC	Final

Dimensions



Pin assignment

Pin No.	Pin name	Description
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	ANT	Antenna
7	GND	Ground
8	GND	Ground

Figure 1. Dimensions and Pin assignment

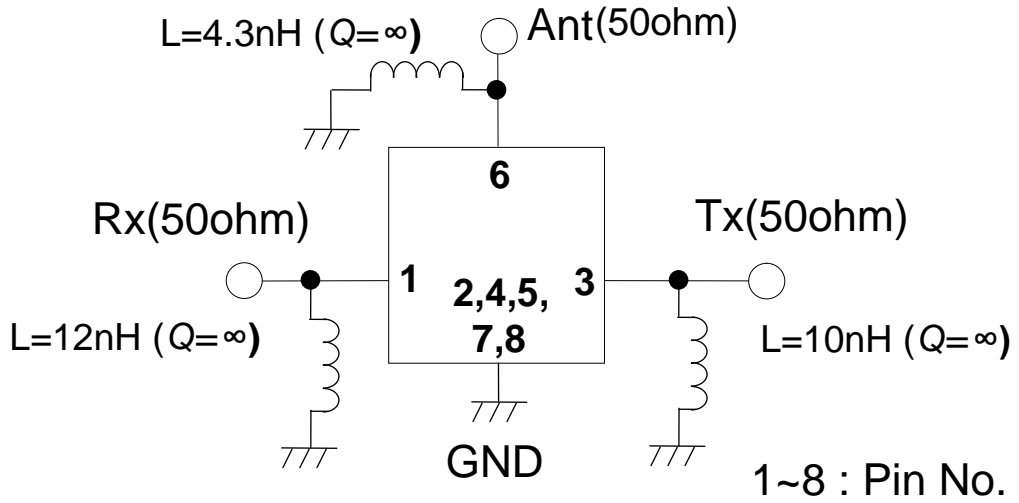


MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Evaluation Circuit



Recommended foot print pattern

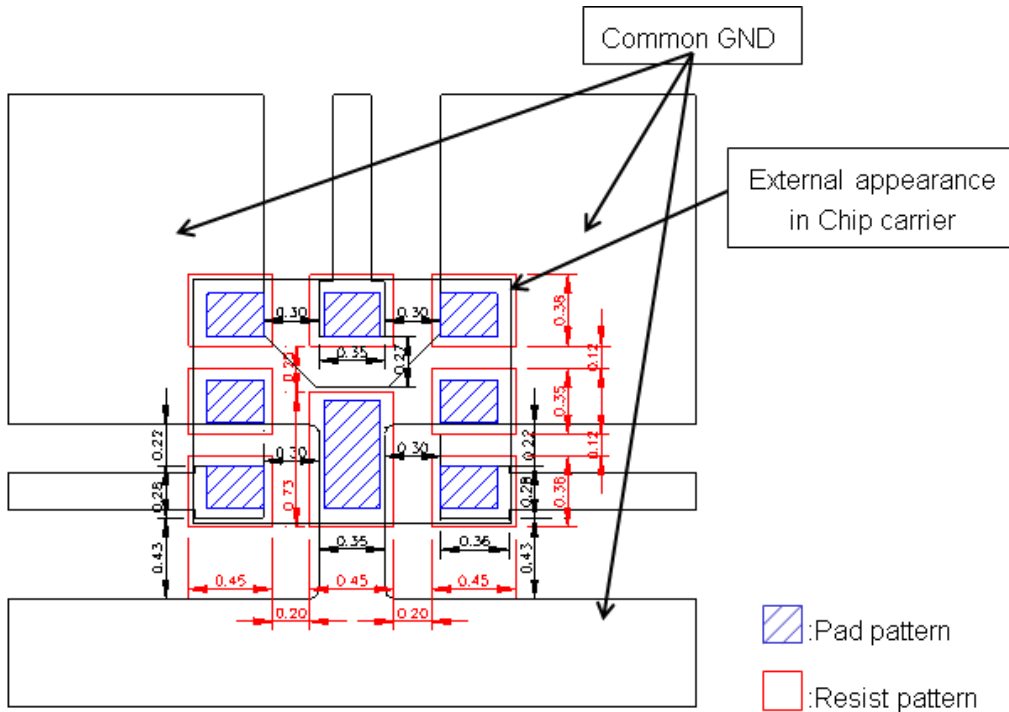


Figure 2. Recommended foot print pattern

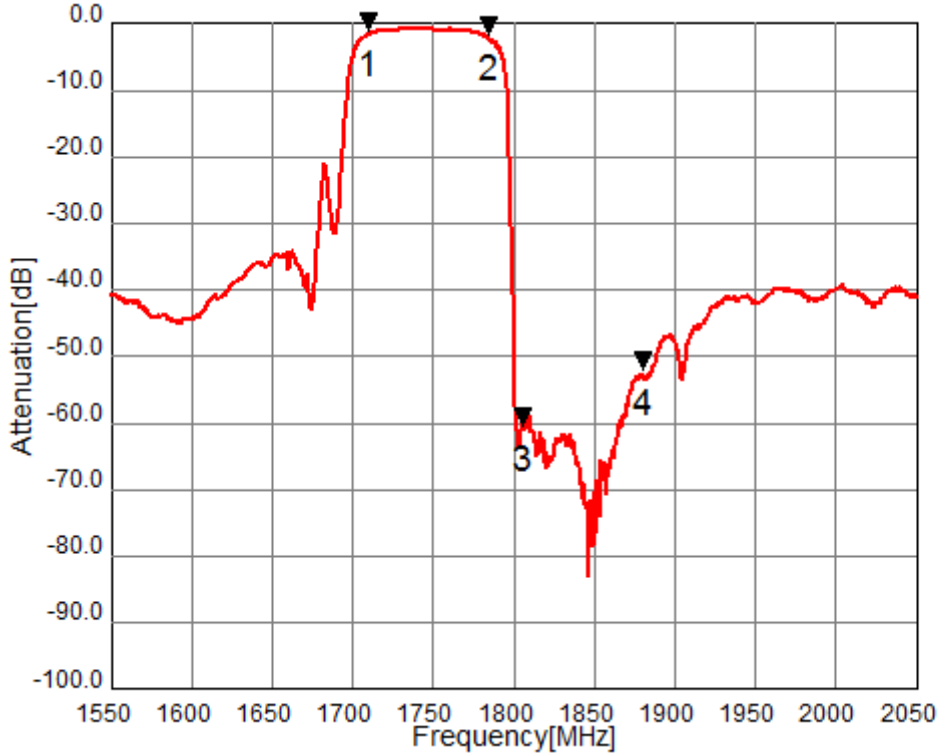


MSL1

* Pb Free Part

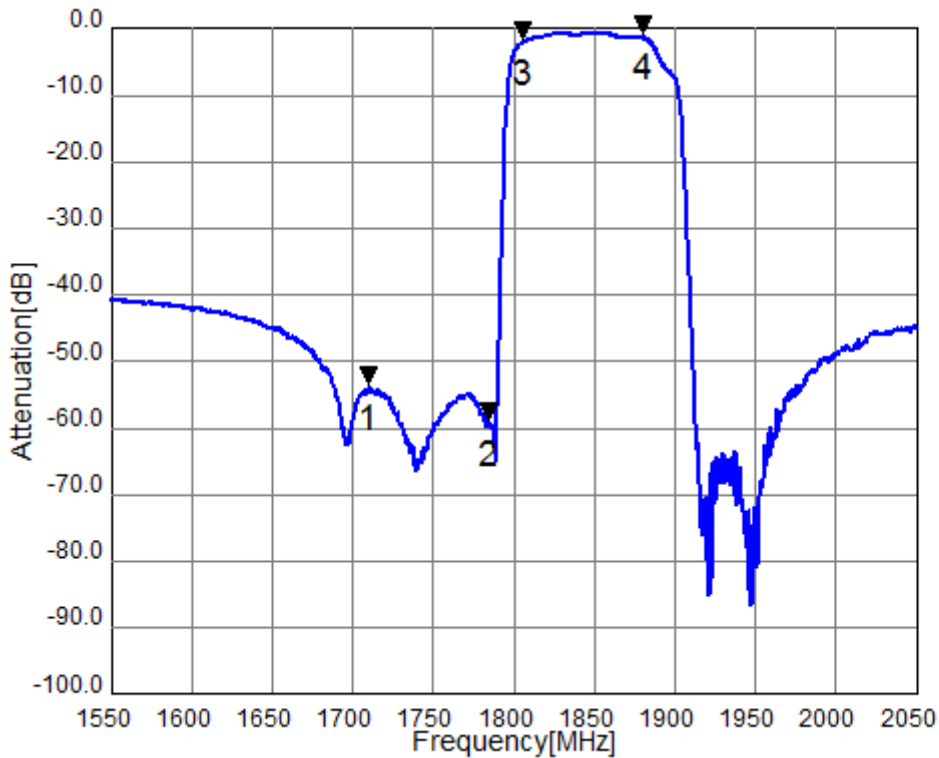
Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Tx to Ant



- Mk1: 1710.0MHz
M1 S21=-1.535dB
- Mk2: 1785.0MHz
M1 S21=-2.326dB
- Mk3: 1805.0MHz
M1 S21=-60.994dB
- Mk4: 1880.0MHz
M1 S21=-52.701dB

Ant to Rx



- Mk1: 1710.0MHz
M1 S31=-54.127dB
- Mk2: 1785.0MHz
M1 S31=-59.339dB
- Mk3: 1805.0MHz
M1 S31=-2.112dB
- Mk4: 1880.0MHz
M1 S31=-1.469dB

Figure 3-1. Electrical Characteristics

These data exclude loss that comes from the test board.

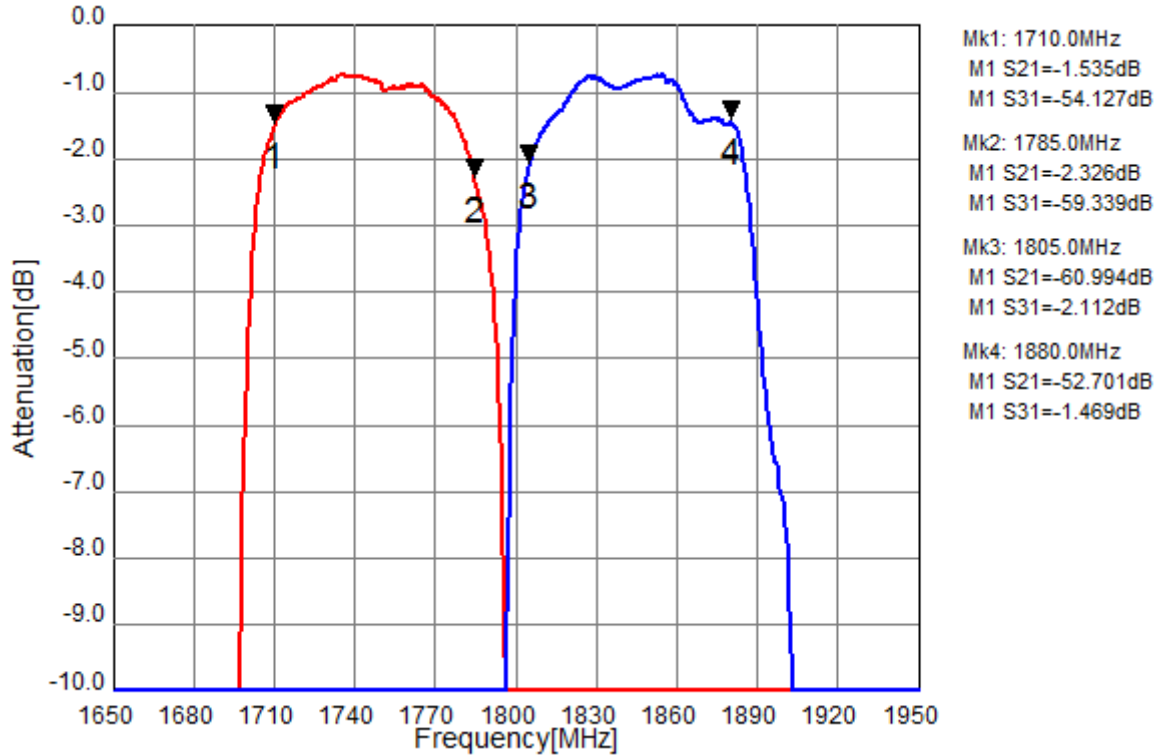


MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1fC	Final

Tx to Ant, Ant to Rx



Tx to Rx Isolation

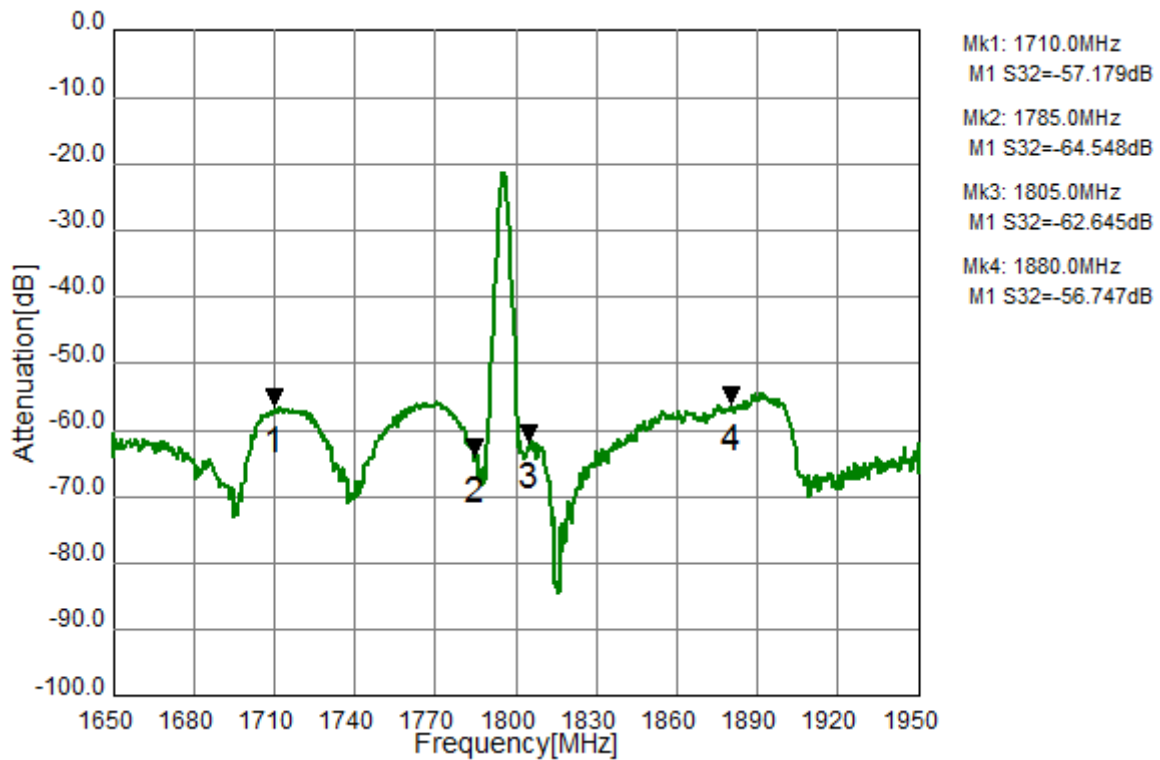


Figure 3-2. Electrical Characteristics

These data exclude loss that comes from the test board.



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Tx Port

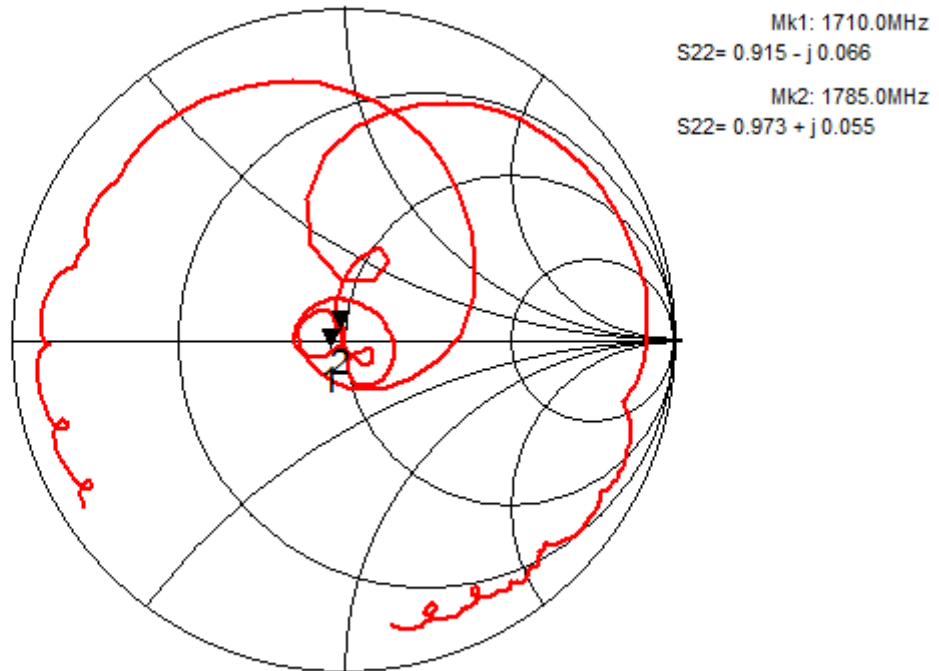
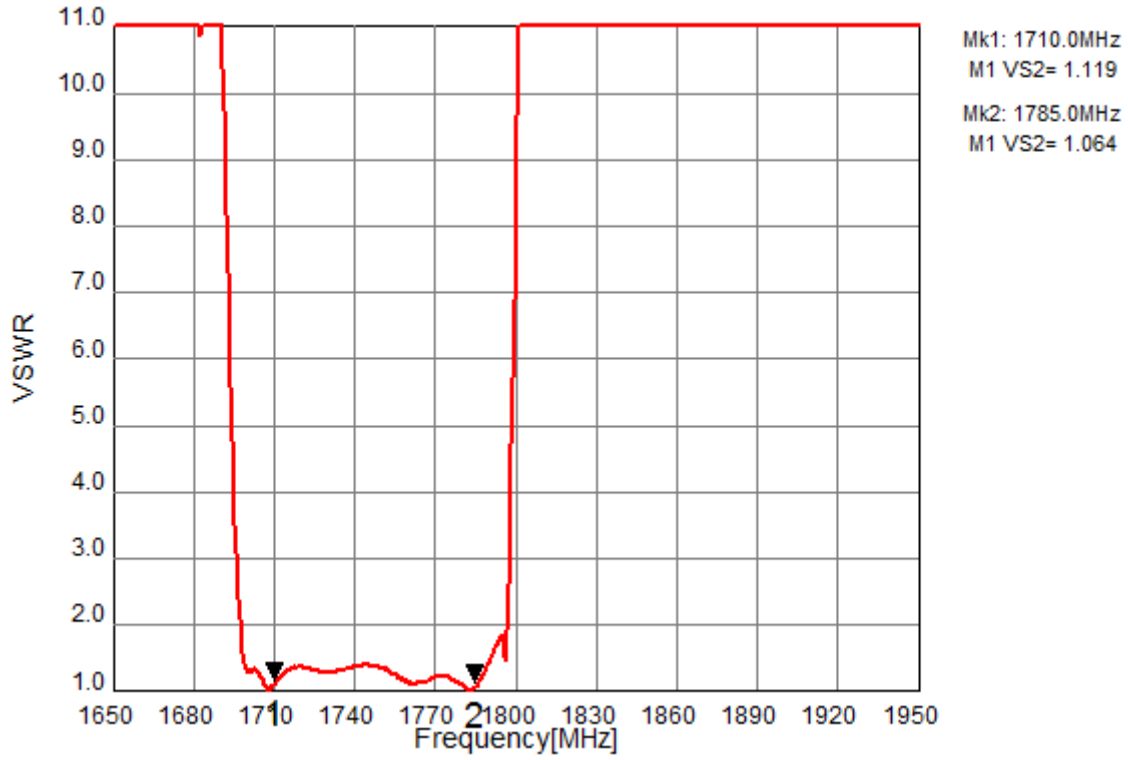


Figure 3-3. Electrical Characteristics



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1fC	Final

Rx Port

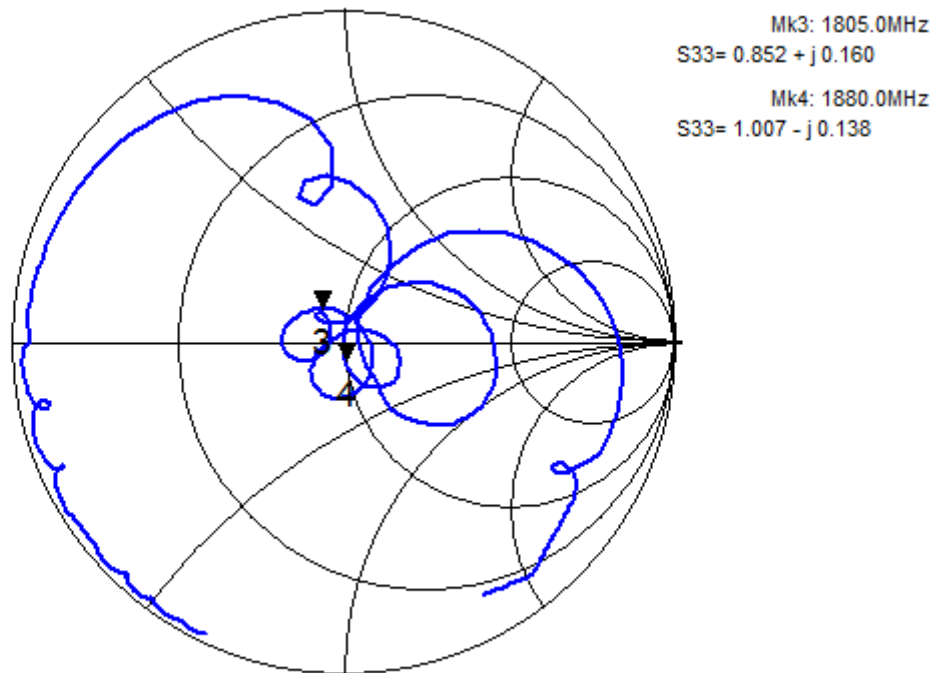
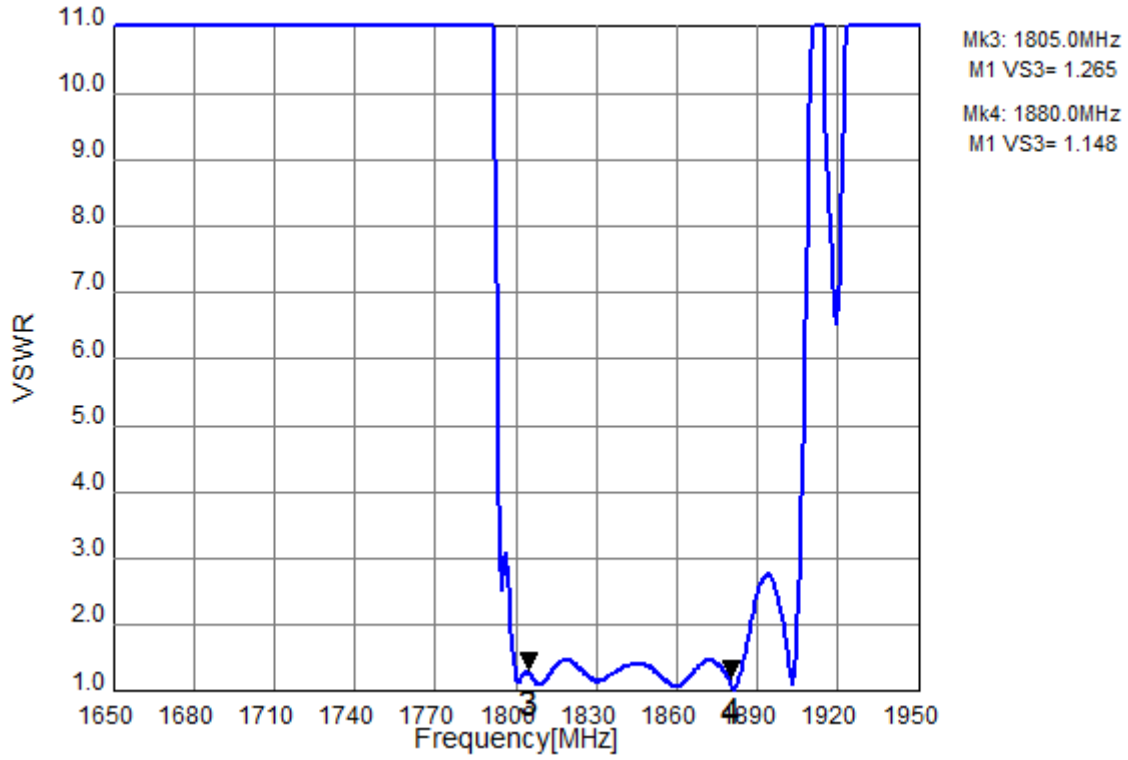


Figure 3-4. Electrical Characteristics



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Ant Port

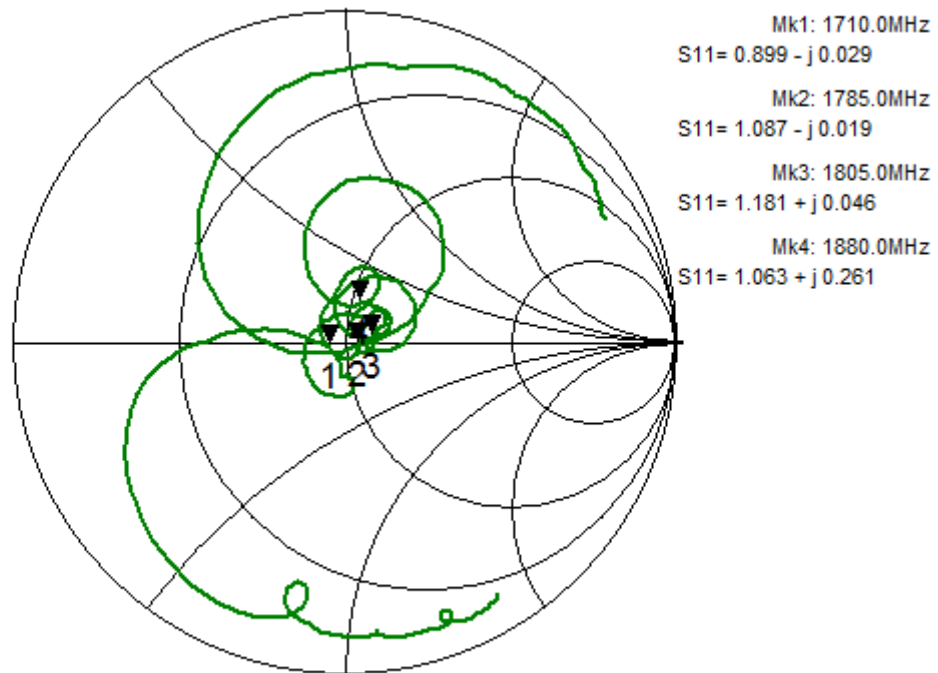
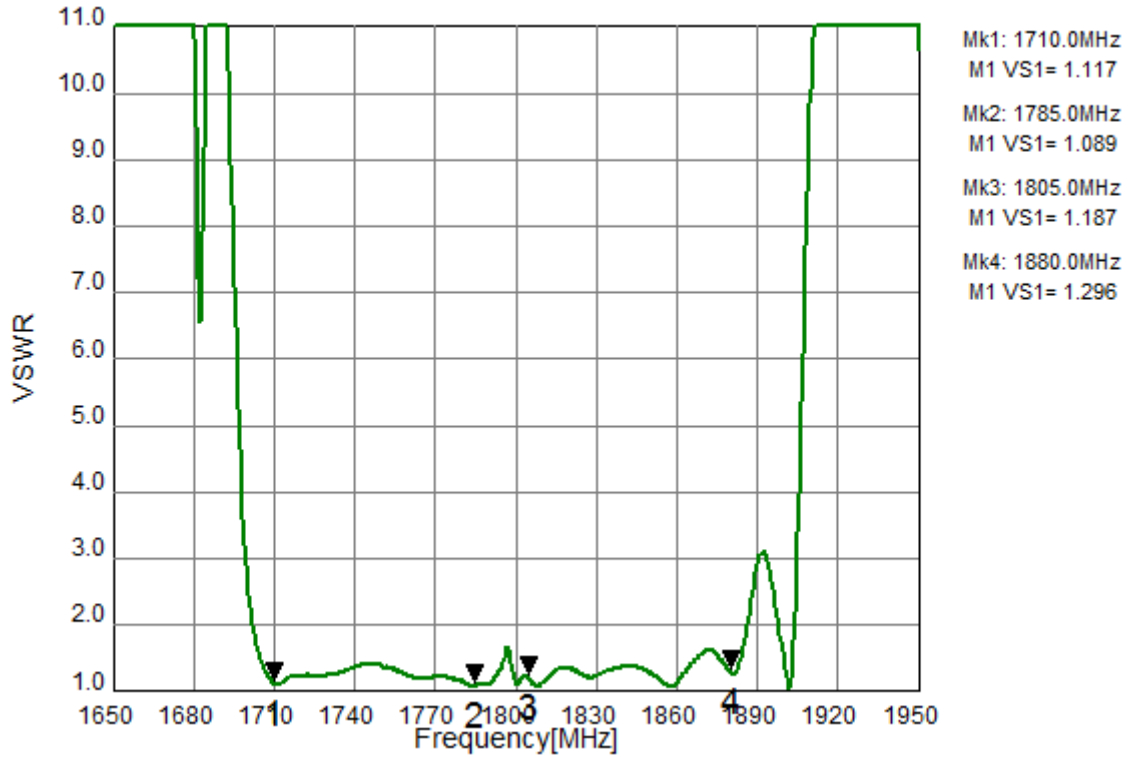


Figure 3-5. Electrical Characteristics

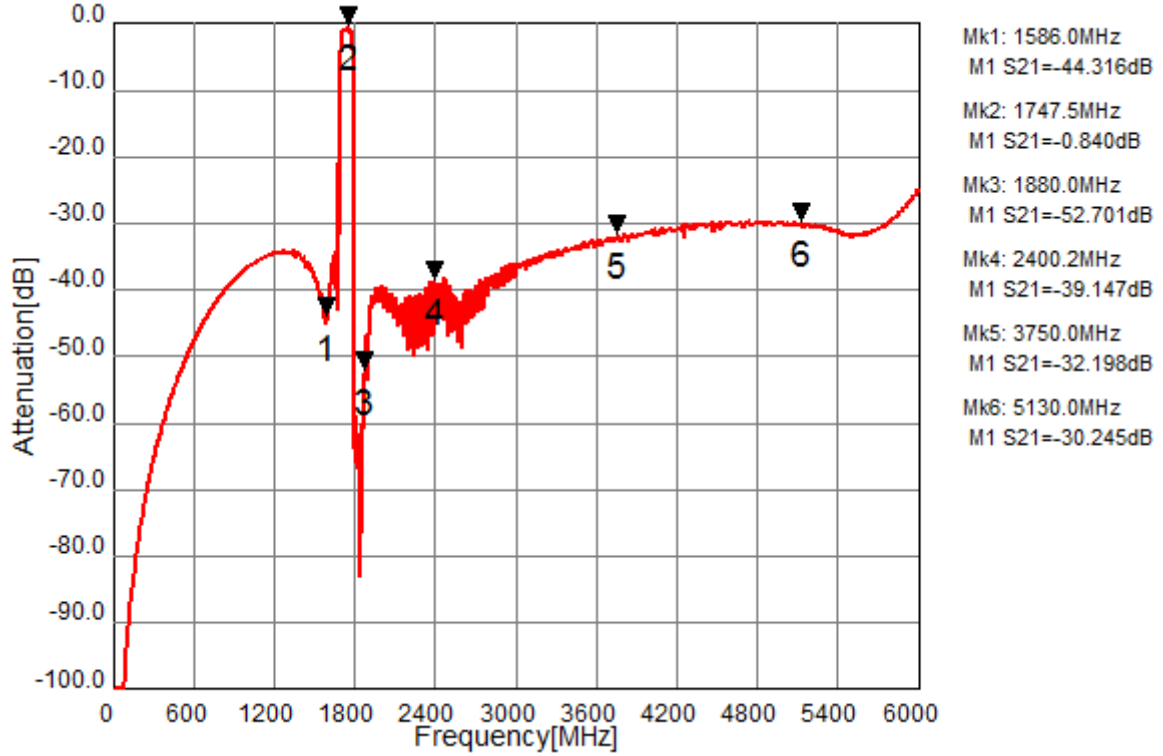


MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Tx to Ant (Wide span)



Ant to Rx (Wide span)

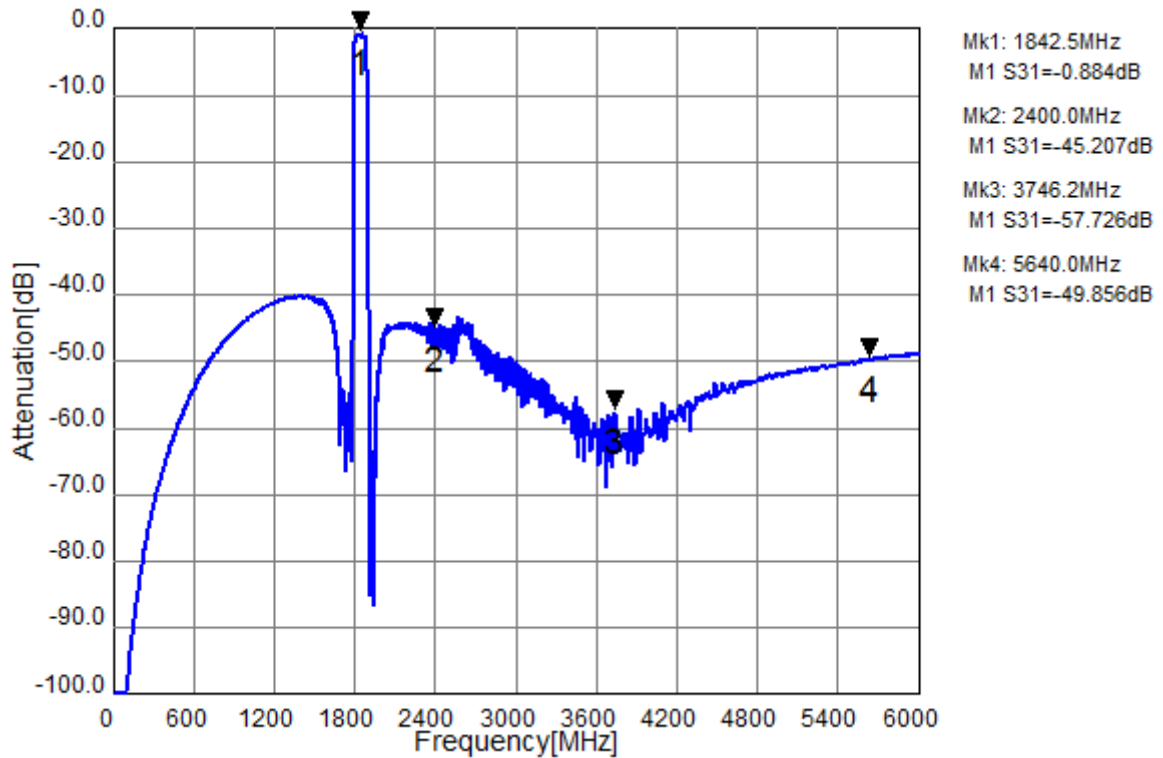


Figure 3-6. Electrical Characteristics



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Tx to Rx Isolation(Wide span)

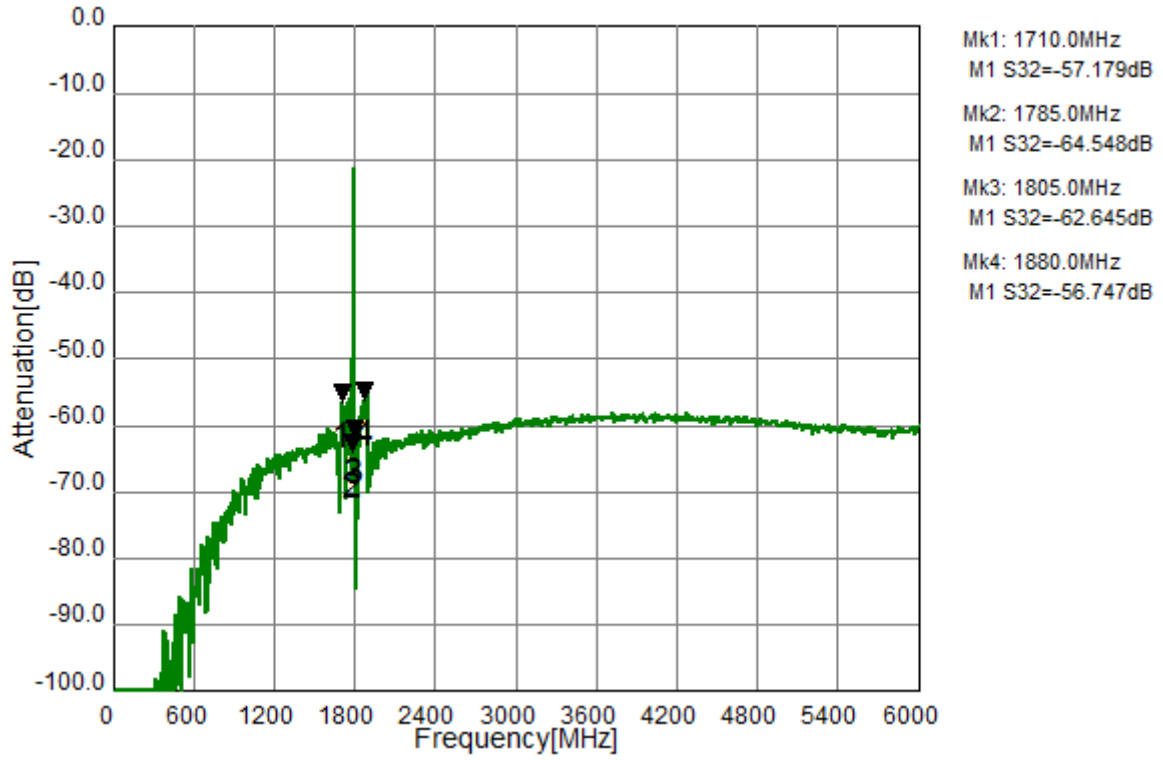


Figure 3-7. Electrical Characteristics



MSL1

* Pb Free Part

Customer Name	Standard	TAIYO YUDEN Mobile Technology Co.,Ltd.	
System	Band 3 Duplexer	Date	May 31, 2016
Part Number	D6DA1G842K2C4	Version 7.1ffC	Final

Ordering Code

Ordering Code	Packing	Reel size	Status
D6DA1G842K2C4-Z	Tape & Reel	3,000 pcs.	MP
D6DA1G842K2C4-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6DA1G842K2C4-Y	Tape & Reel	15,000 pcs.	MP
D6DA1G842K2C4-YA	Tape & Reel	less than 15,000 pcs.	MP
D6DA1G842K2C4-Q	Bulk	few pcs.	MP

*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

*MP : Mass Production

Notice

All of the contents specified herein are subject to change without notice due to technical improvements, etc.

Please contact TAIYO YUDEN Co., Ltd. for further details of product specifications.

Please conduct validation and verification of products in actual condition of mounting and operating environment before commercial shipment of the equipment.

This product is for general electronics equipment such as Audio-Visual equipment, household electronics, office supplies, information services and telecommunications; therefore, in case this product is used for any medical equipment, space equipment, nuclear equipment or disaster prevention equipment, please contact TAIYO YUDEN in advance.

In case this product is used for general electronics equipment or circuits which require high safety and high reliability, thoroughly evaluate on safety and add a protection circuit if necessary.