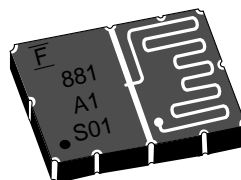


ASSP Mobile Communication Systems**SAW Duplexer (700 to 1000 MHz)****D5CB Series (D1)****DESCRIPTION**

The D5CB series of SAW antenna duplexer apply to the frequency range 700 to 1000 MHz. The SAW filters are fabricated on a lithium tantalate (LiTaO_3) substrate, producing small size and light duplexer. And its high performances is realized by using original design and patterning technology. The D1 type of SAW duplexer including transmitter filter, receiver filter and matching circuit is housed in a small package, so it is able to be stored inside thin radio card like CDPD standard.

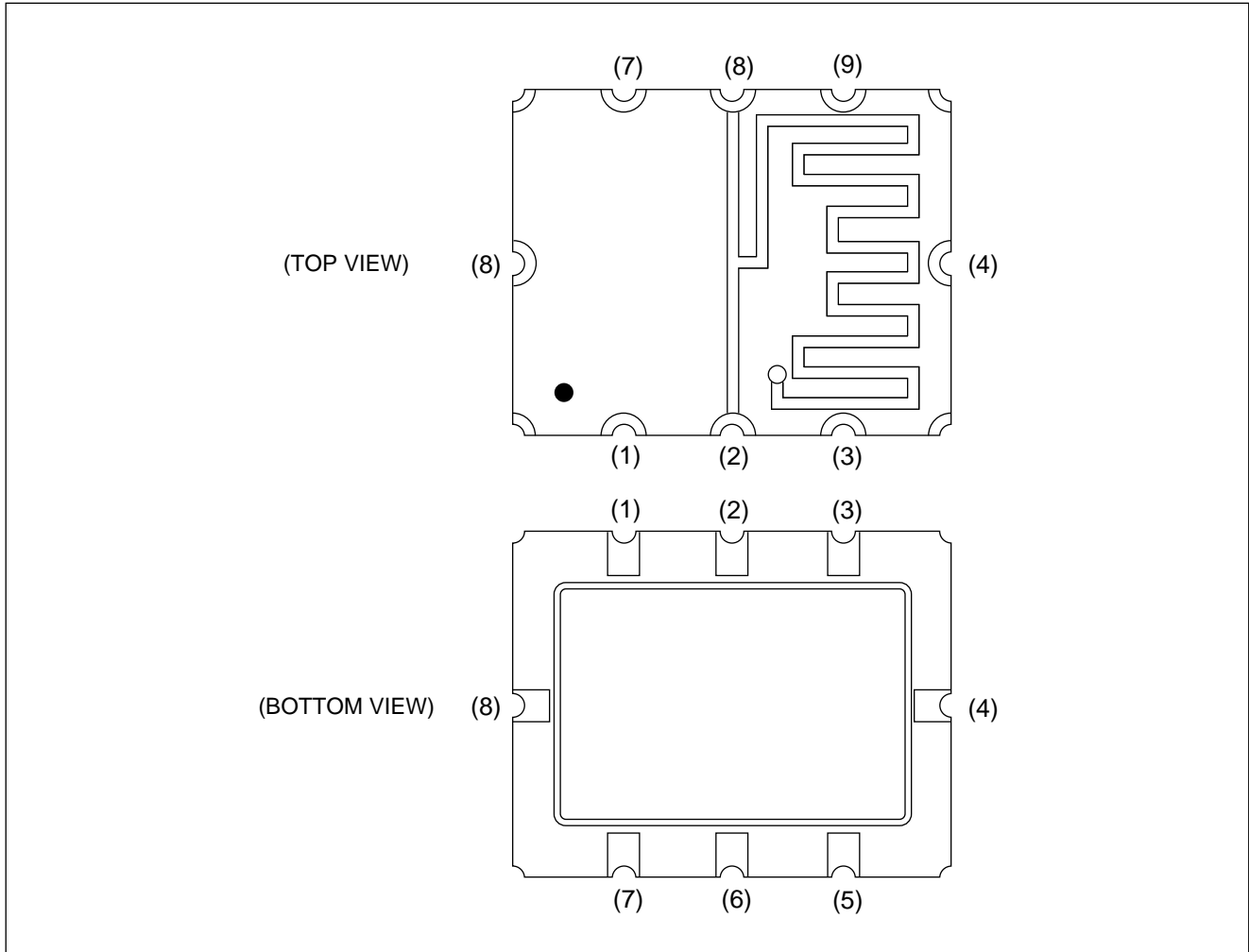
FEATURES

- Ultra compact and light package (0.18 cc, 1.6 mm of height)
- External matching circuits are not required.
- Surface mount package (SMT)
- High handling power resistance

PACKAGE

D5CB Series (D1)

■ PIN ASSIGNMENT



■ PIN DESCRIPTION

Pin No.	Pin name	Description
1	GND	Ground pin
2	ANT	Antenna pin *
3	GND	Ground pin
4	RX	Receiver side pin
5	GND	Ground pin
6	ANT	Antenna pin *
7	GND	Ground pin
8	TX	Transmitter side pin

* : Connect only one of two antenna pins to antenna terminal.
Regarding the other, it doesn't need to connect to any terminal.

D5CB Series (D1)

■ ABSOLUTE MAXIMUM RATINGS (See WARNING)

Parameter	Symbol	Rating	Unit
Operating temperature	T_a	-30 to +85	°C
Storage temperature	T_{stg}	-40 to +100	°C
Maximum input power	P_{IN}	1.2	W
Frequency range	—	700 to 1000	MHz

WARNING: Permanent device damage may occur if the above Absolute Maximum Ratings are exceeded. Functional operation should be restricted to the conditions as detailed in the operational sections of this data sheet. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

■ RECOMMENDED OPERATING CONDITIONS

Parameter	Symbol	Value	Unit
Operating temperature	T_a	-30 to +70	°C

■ STANDARD FREQUENCIES

System	Rx freq. (MHz)	Tx freq. (MHz)	Part number	Remarks
AMPS/ADC	824 to 849	869 to 894	FAR-D5CB-881M50-D1A1	

D5CB Series (D1)

■ ELECTRIC CHARACTERISTICS

AMPS/ADC

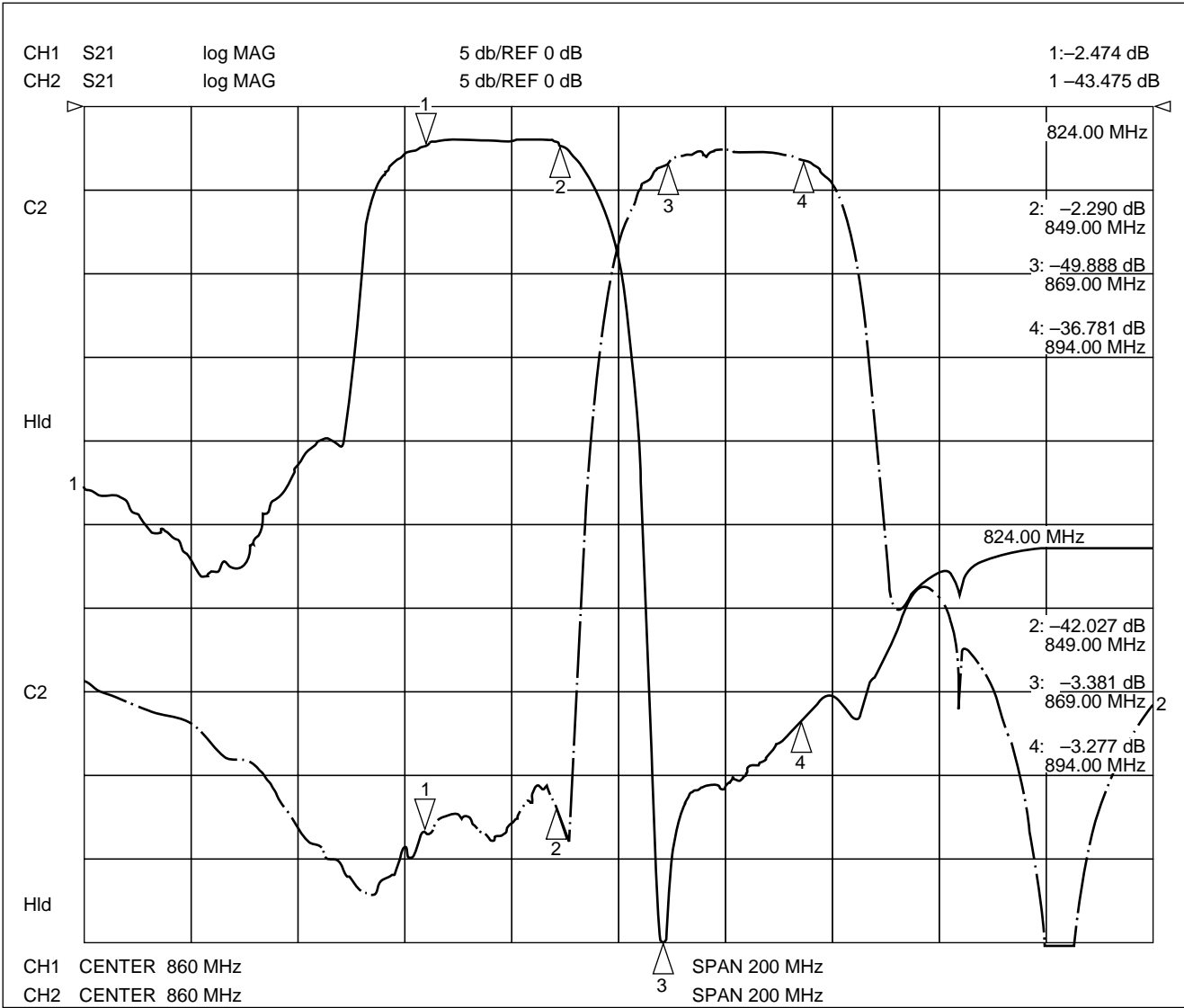
Part number: FAR-D5CB-881M50-D1A1

(T_a = -30 to +85°C)

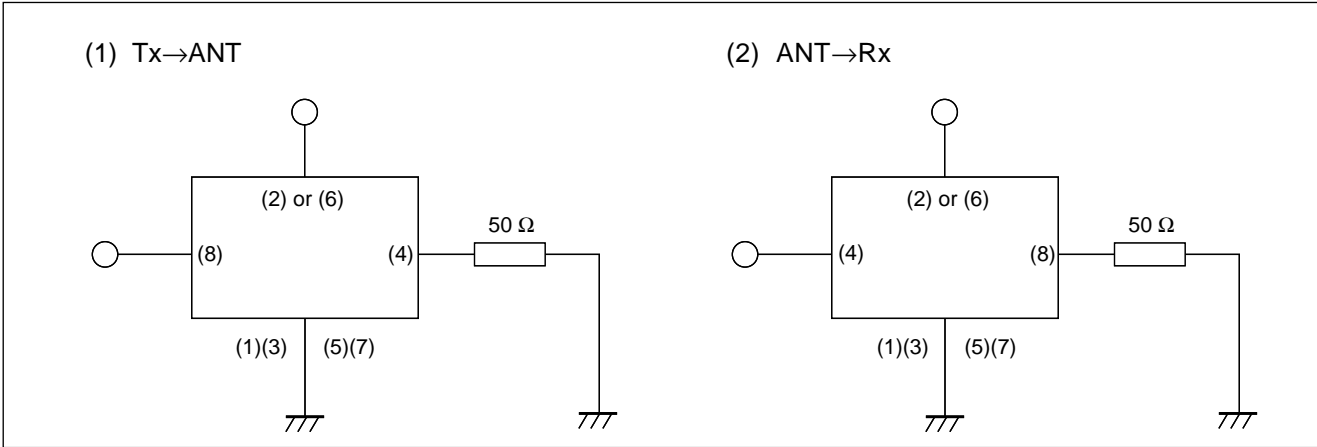
Parameter	Symbol	Conditions	Value			Unit	Remarks	
			Min.	Typ.	Max.			
Tx- antenna	Insertion loss	IL	824 to 849 MHz	—	2.5	3.0	dB	
	In-band ripple	—	824 to 849 MHz	—	1.0	1.5	dB	
	Absolute attenuation	—	869 to 894 MHz	35	40	—	dB	
		—	1673 MHz	15	19	—	dB	
—	2510 MHz	10	13	—	dB			
Rx- antenna	Insertion loss	IL	869 to 894 MHz	—	3.5	4.0	dB	
	In-band ripple	—	869 to 894 MHz	—	1.5	2.5	dB	
	Absolute attenuation	—	824 to 849 MHz	40	43	—	dB	
Inband VSWR	Tx	—	824 to 849 MHz	—	1.7	2.0	—	
	Rx	—	869 to 894 MHz	—	1.7	2.0	—	
	antenna	—	824 to 849 MHz	—	1.8	2.0	—	
		—	869 to 894 MHz	—	2.0	2.5	—	

D5CB Series (D1)

TYPICAL CHARACTERISTICS



MEASUREMENT CIRCUIT



D5CB Series (D1)

■ PART NUMBER DESIGNATION

[Designation example]

FAR-D5CB-□□□□□□-D1□□-□

(1) (2) (3)

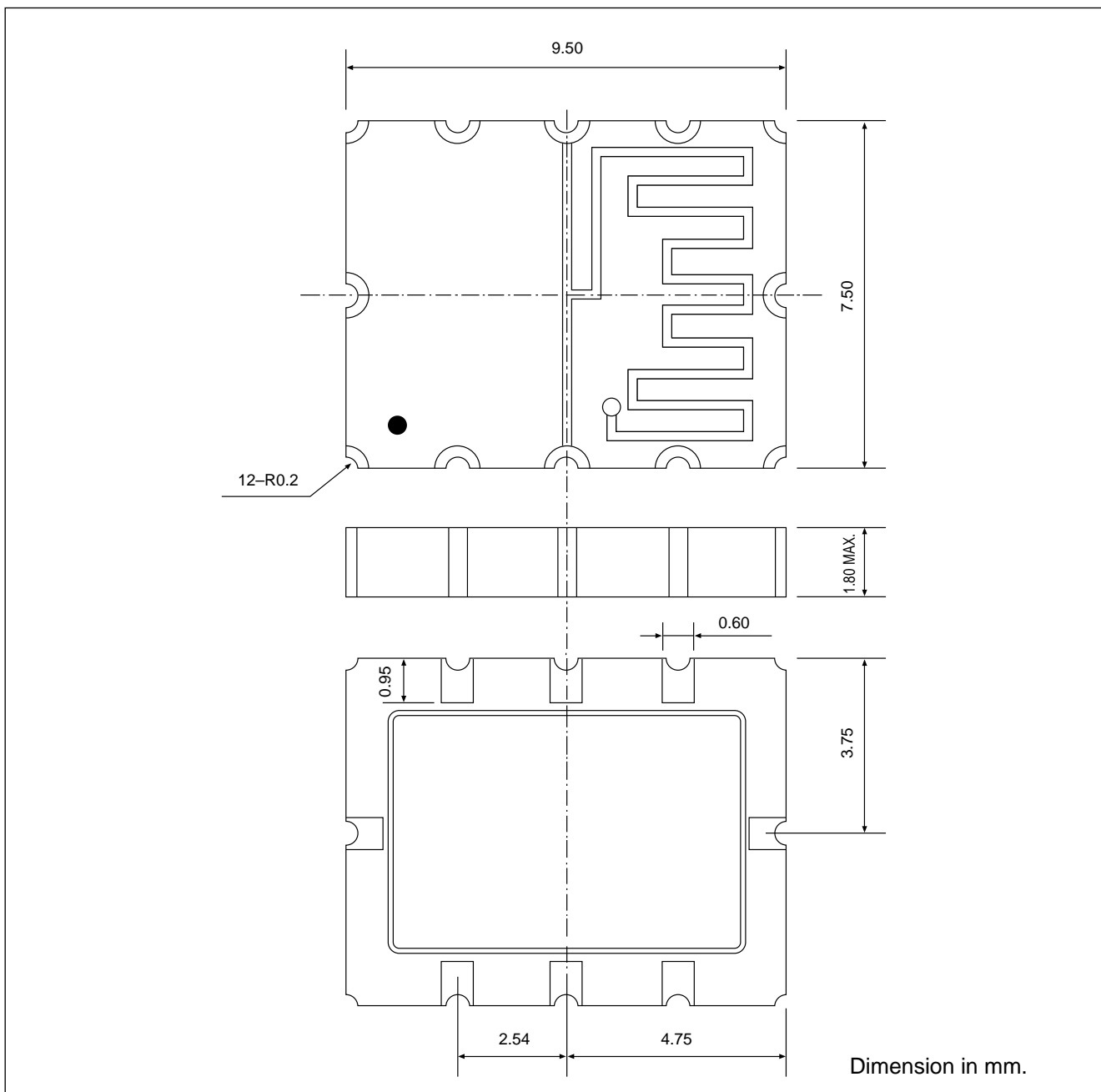
- (1) Frequency: Specify the nominal center frequency of higher frequency side in six alphanumeric. Enter M (for MHz) at the decimal point. Refer to below example.

[Example] 881.5 MHz ⇒ 881M50

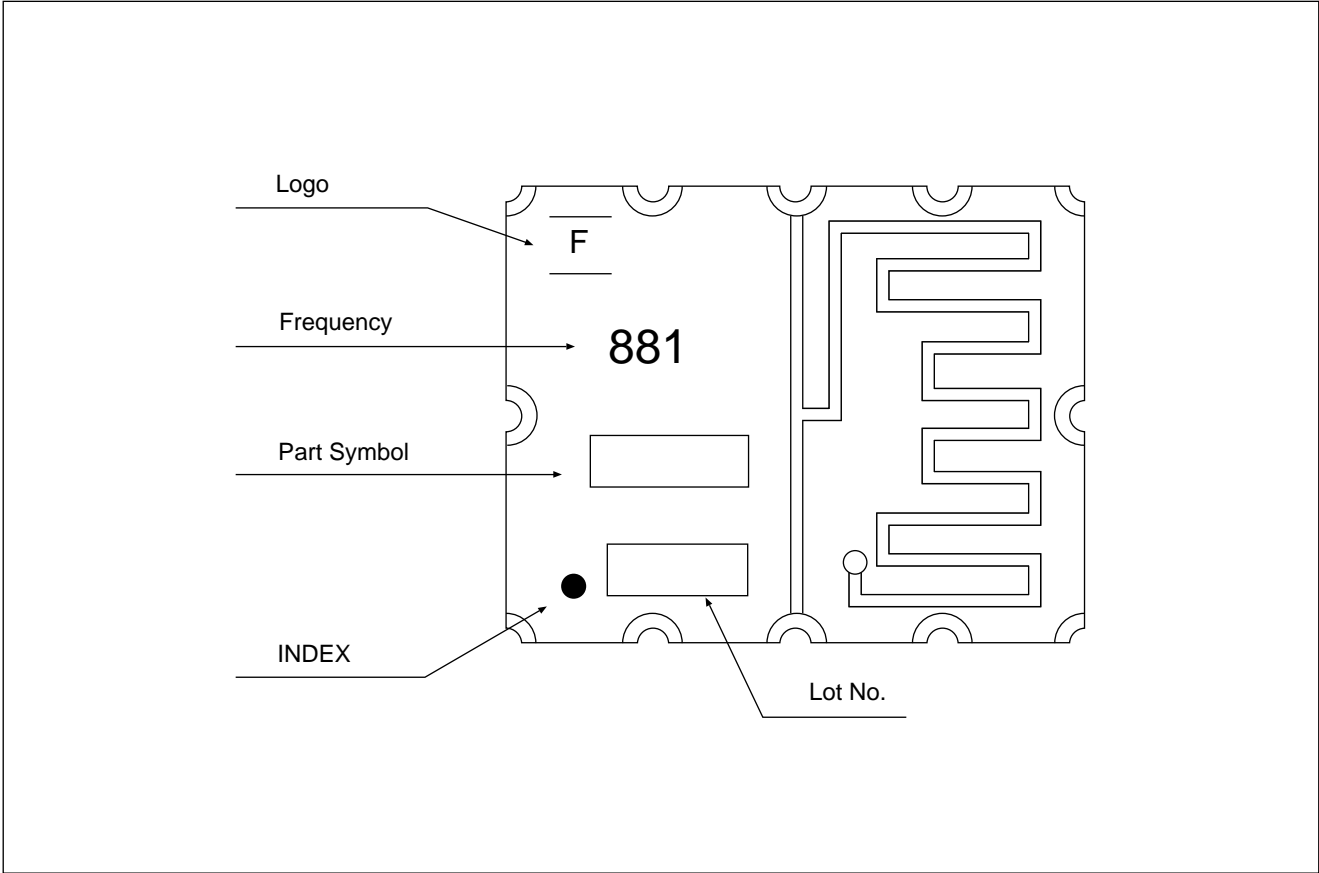
- (2) Part symbol: Specified characters from A1 to Z9.

- (3) Packing: T:1 k pcs/reel

■ PACKAGE DIMENSION



MARKING



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