

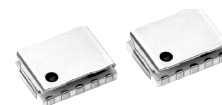
RF Modules

Front-End Modules

5-Port

ASM70 Series

This product is a module that integrates band switching, switching between transmitting and receiving, and harmonic suppressor filter functions necessary for the front-end of dual-mode mobile communications equipment. By using the multilayer technique, it is possible to achieve a small size just L6.7×W4.8×T1.8mm(typ.). Compared to using individual components, the area is 40% less.



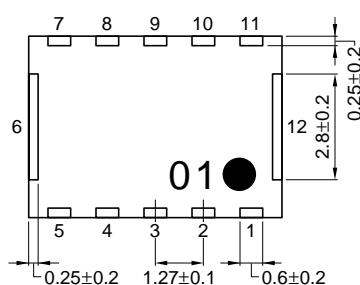
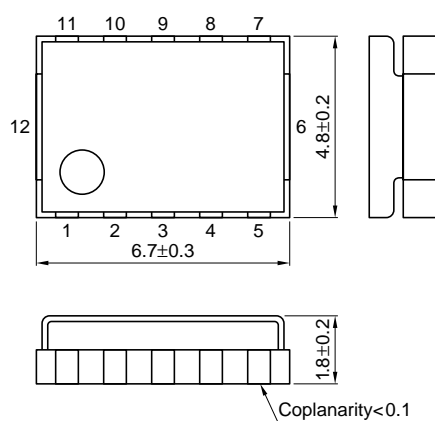
FEATURES

- Small type.
- High function.
- Low insertion loss.

APPLICATIONS

Circuit for switching between transmit and receive in dual-mode mobile communications equipment

SHAPES AND DIMENSIONS



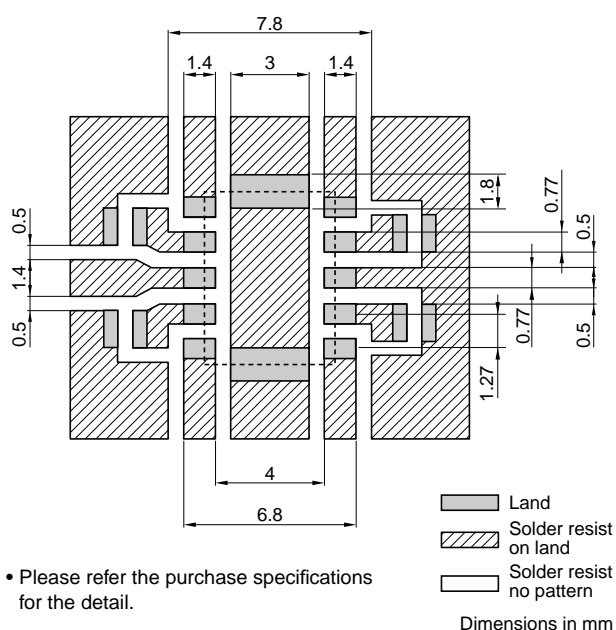
Pin Configuration

1	GSM-TX	7	DCS-RX
2	VC1	8	VC3
3	GND	9	ANTTENA
4	VC2	10	VC4
5	GSM-RX	11	DCS-TX
6	GND	12	GND

Weight:170mg

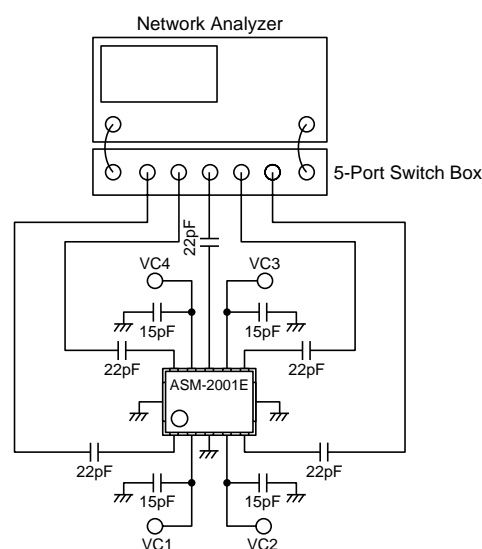
Dimensions in mm

RECOMMENDED PC BOARD PATTERN



Dimensions in mm

TEST CIRCUIT



Application		VC1	VC2	VC3	VC4
GSM	ANT-TX	High	Low	Low	Low
	ANT-RX	Low	High	Low	Low
DCS	ANT-TX	Low	Low	Low	High
	ANT-RX	Low	Low	High	Low

RF Modules

Front-End Modules

5-Port

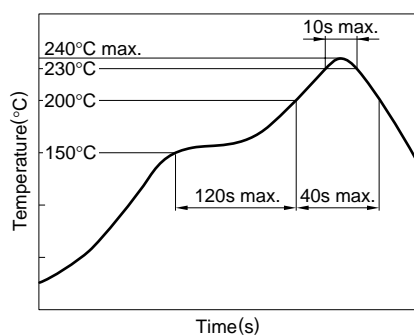
ASM70 Series

ELECTRICAL CHARACTERISTICS

Parameter	Unit	Minimum	Typical	Maximum	
GSM mode	Insertion loss[880 to 915MHz]T=25°C	dB	1	1.2	
	Insertion loss[880 to 915MHz]T=-30 to +85°C	dB		1.2	
	Insertion loss[925 to 960MHz]T=25°C	dB		0.7	
	Insertion loss[925 to 960MHz]T=-30 to +85°C	dB		0.9	
	Attenuation 2f _{tx}	dB	25	27	
	Attenuation 3f _{tx}	dB	25	27	
	Isolation TX-RX	dB	20	25	
	Isolation TX-ANT	dB	20	25	
	Input VSWR TX			1.3	1.5
	Input VSWR RX			1.3	1.5
DCS mode	Insertion loss[1710 to 1785MHz]T=25°C	dB	1.1	1.5	
	Insertion loss[1710 to 1785MHz]T=-30 to +85°C	dB		1.4	
	Insertion loss[1805 to 1880MHz]T=25°C	dB		0.8	
	Insertion loss[1805 to 1880MHz]T=-30 to +85°C	dB		1.1	
	Attenuation 2f _{tx}	dB	25	28	
	Attenuation 3f _{tx}	dB	25	28	
	Isolation TX-RX	dB	20	22	
	Isolation TX-ANT	dB	20	25	
	Input VSWR TX			1.3	1.5
	Input VSWR RX			1.3	1.5
Harmonics level[at ANT]	GSM 2f _{tx}	dBc		-70	
	GSM 3f _{tx}	dBc		-70	
	DCS 2f _{tx}	dBc		-70	
	DCS 3f _{tx}	dBc		-70	
VC1, VC2, VC3, VC4	VC High	V	2.6	2.8	
	VC Low	V	-0.3	0	
	Difference:VC1-VC2, VC4-VC3	V	2.6	2.8	
Current consumption	VC1, VC4=High	mA		10	
	VC2, VC3=High	mA		0.05	
RF input power	GSM-TX	dBm		37	
	DCS-TX	dBm		34	
	GSM-RX	dBm		10	
	DCS-RX	dBm		10	
Temperature range	Operating	°C	-30	+90	
	Storage	°C	-30	+100	

RECOMMENDED SOLDERING CONDITIONS

REFLOW SOLDERINGS



PACKAGING STYLES

TAPE DIMENSIONS

