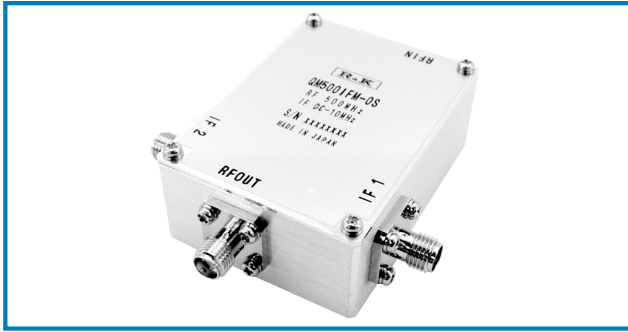


# QPSK MODULATOR

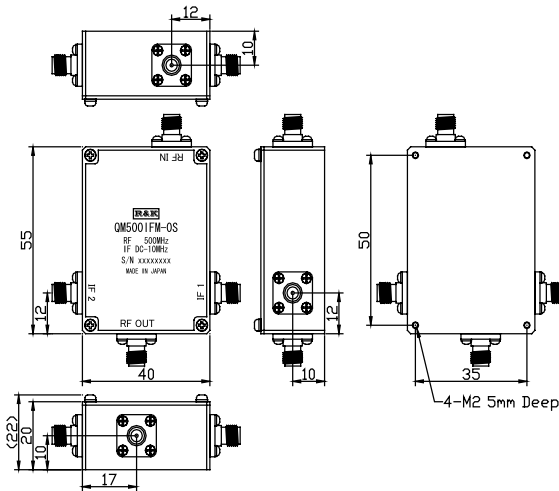


## R&K-QM500IFM-OS



### OUTLINE DRAWING

※IN MILLIMETERS



- RF Center Frequency : 500MHz
- Good Amplitude and Phase Balance
- Small Size
- RoHS Compliance

### SPECIFICATIONS

RF Frequency Range	: 500MHz (Bandwidth 10%)
IF Frequency Range	: DC - 10MHz
RF Input Level	: +10dBm ±0.5dB
Insertion Loss	: 12dB (max.)
Amplitude Balance	: 0.5dB (max.)
Phase Balance	: 5° (max.)
VSWR (All Ports)	: 1.6:1 (max.)
Input 1dB Compression Point (@IF1&2 Port each)	: +4dBm (typ.)
Impedance	: 50 Ω
Maximum RF Input Power	: 100mW
Operating Temperature	: -40°C to + 85°C
Storage Temperature	: -40°C to +100°C
Connectors (Standard)	: SMA-FEMALE
Connectors (Option)	: BNC-FEMALE
	: N-FEMALE
Weight (SMA Connector)	: 90g (typ.)

### HOW TO ORDER

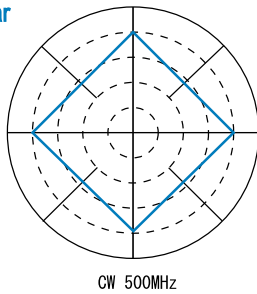
Model Name R&K-QM500IFM-OS

S = SMA - FEMALE  
 B = BNC - FEMALE  
 N = N - FEMALE

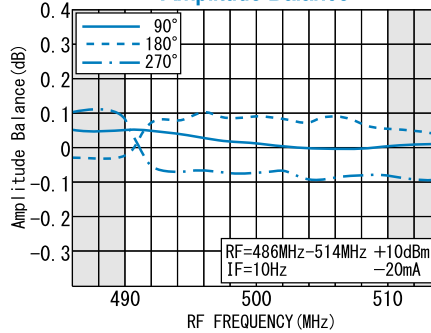
### TYPICAL PERFORMANCE (Temp @+25°C)

#### Output Phase States

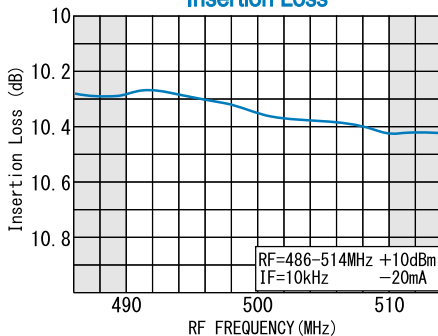
Polar



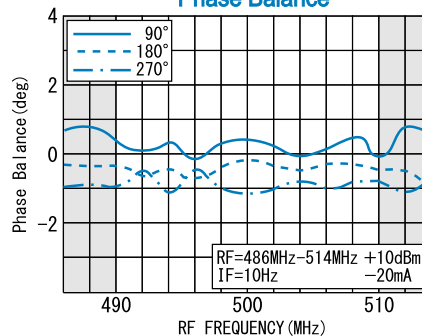
#### Amplitude Balance



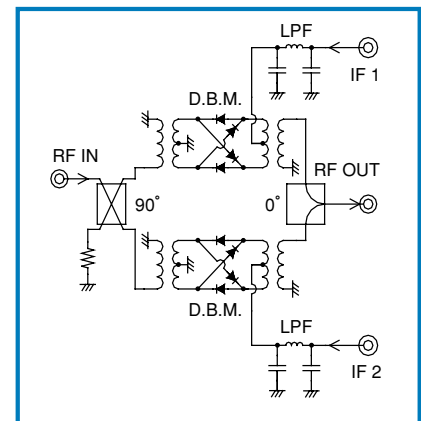
#### Insertion Loss



#### Phase Balance



### SCHEMATIC



#### PHASE SHIFT VS. CONTROL CURRENT

IF 1 (mA)	IF 2 (mA)	PHASE (deg)
+20	+20	0 (REF)
+20	-20	90
-20	-20	180
-20	+20	270

NOTE:  
IF ports drive with 50 Ω source.

R&K reserves the right to make changes in the specifications of or discontinue products at any time without notice. R&K products shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as aerospace uses or medical life support equipment. Further, R&K cannot export products to any country for use in military or defense applications.

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