

## RF DIODE SWITCHES

### For Mobile Communication Equipment

#### RF Diode Switches

**NEW**



LMS36C

System	Parts Number	Frequency Range (fo) (MHz)	Insertion Loss (dB)	Isolation (Tx→Rx) (dB)	Power Capacity (dBm)
GSM	LMS36C0902M045	Tx 902.5±12.5	1.0 max.	20 max.	35
		Rx 947.5±12.5			
PDC1.5GHz	LMS36C1441M048	Tx 1441.0±12.0	1.0 max.	20 max.	35
		Rx 1489.0±12.0			
PHS	LMS36C1907M000	1907.5±12.5	1.0 max.	20 max.	27
W-LAN	LMS36C2450M000	2450.0±50.0	1.0 max.	20 max.	27

\* Other systems also available.

#### RF Diode Switches with Integrated Low-Pass Filter

**NEW**



LMS36L

System	Parts Number	Frequency Range (fo) (MHz)	Insertion Loss (dB)	Isolation (Tx→Rx) (dB)	Attenuation Tx→ANT (dB)	Power Capacity (dBm)
GSM	LMS36L0902M045	Tx 902.5±12.5	Tx→ANT 1.7max.	20 min.	25.0min. at 2Xfo	35
		Rx 947.5±12.5	ANT→Rx 1.5max.		25.0min. at 3Xfo	
PDC1.5GHz	LMS36L1441M048	Tx 1441.0±12.0	Tx→ANT 1.7max.	20 min.	25.0min. at 2Xfo	35
		Rx 1489.0±12.0	ANT→Rx 1.5max.		25.0min. at 3Xfo	
PHS	LMS36L1907M000	Tx 1907.5±12.5	Tx→ANT 1.7max.	20 min.	25.0min. at 2Xfo	27
		Rx	ANT→Rx 1.0max.		25.0min. at 3Xfo	

\* Other systems also available.

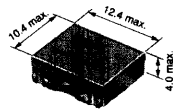
Minimum Quantity (order in sets only)

Taping: 500pcs./reel

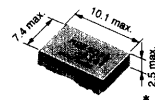
(in mm)

## MICROWAVE OSCILLATORS (VCO)

### VCO for Mobile Telephones and Portable Telephones



MQE000 Type



MQE500 Type

\* MQE570 Type: 3.0max.

(in mm)

### VCO for Analog Cellular Phone Systems

Application	Part Number	Operating Freq. Range (MHz)	Supply Voltage (V)	Control Voltage Range (V)	Control Voltage Sensitivity (MHz/V)	Output Level (dBm)	Power Consumption (mA max.)	Audio Modulation Sensitivity (1) (mVrms)	S/N (2) (dBc min.)	C/N (3) (dBc/Hz min.)	
E-AMPS	Tx	MQE001-836	836.5±12.5	4.2±0.25	1.0-4.0	≧ 9.0	≧ -4.0	6.5	124-248 (± 8)	52 (± 8)	110 (25)
		MQE501-836	836.5±12.5	4.3±0.25	1.0-4.0	≧ 11.0	≧ -1.0	7.0	290-400 (± 10)	50.5 (± 8)	114 (60)
	Rx	MQE001-926	926.5±12.5	4.2±0.25	1.0-4.0	≧ 10.0	≧ -5.0	6.5	—	52 (± 8)	110 (25)
		MQE501-926	926.5±12.5	4.5±0.25	0.7-4.3	≧ 8.5	≧ -5.0	7.0	—	52 (± 8)	109 (30)
		MQE001-964	964.5±12.5	4.2±0.25	1.0-4.0	≧ 9.0	≧ -5.0	8.0	—	52 (± 8)	110 (25)
E-TACS	Tx	MQE043-964A	964.5±12.5	3.2±0.25	1.0-3.0	≧ 13.0	≧ -6.0	8.0	—	52 (± 8)	100 (60)
		MQE001-888	888.5±16.5	4.2±0.25	1.0-4.0	≧ 12.0	≧ -4.5	6.5	124-248 (± 6.4)	52 (± 8)	109 (25)
	Rx	MQE042-888	888.5±16.5	3.3±0.20	0.5-2.7	≧ 19.5	≧ -6.0	8.0	124-248 (± 6.4)	45 (± 3)	107 (25)
		MQE001-978	978.5±16.5	4.2±0.25	0.7-4.3	≧ 11.0	≧ -6.0	10.0	—	52 (± 8)	109 (25)
		MQE001-1016	1016.5±16.5	4.2±0.20	0.5-4.5	≧ 10.0	≧ -6.0	10.0	—	52 (± 6.4)	111 (25)
NMT900	Tx	MQE042-1016	1016.5±16.5	3.3±0.20	0.5-2.7	≧ 16.0	≧ -6.0	7.0	—	45 (± 3)	107 (25)
		MQE002-1025	1025.5±16.5	4.2±0.25	0.7-4.3	≧ 10.5	≧ -6.5	10.0	—	52 (± 6.4)	111 (25)
	Rx	MQE001-902	902.5±12.5	4.2±0.25	1.0-4.0	≧ 10.0	≧ -3.0	10.0	200-316 (± 3)	45 (± 3)	103 (12.5)
NTT	Rx	MQE001-1018	1018.5±12.5	4.2±0.20	1.0-4.0	≧ 10.0	≧ -6.0	10.0	—	45 (± 3)	111 (25)
		MQE001-787	787.5±12.5	5.0±0.25	1.0-4.0	≧ 9.0	≧ -1.0	8.5	—	45 (± 3)	109 (12.5)
N-TACS	Rx	MQE572-787	787.5± 7.5	3.0±0.30	0.5-2.5	≧ 9.5	≧ -6.0	7.0	—	45 (± 3)	107 (12.5)
		MQE002-786	786.5±13.0	4.2±0.25	1.0-4.0	≧ 9.0	≧ -5.0	7.0	—	45 (± 3)	107 (25)
		MQE570-786	786.5±13.5	3.0±0.15	0.5-2.5	≧ 19.0	≧ -5.0	7.0	—	45 (± 3)	110 (25)
		MQE045-801	801.5±13.5	3.2±0.20	0.8-3.3	≧ 14.0	≧ -4.0	7.5	—	45 (± 3)	102 (25)

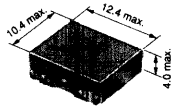
### VCO for Digital Cellular Phone Systems

Application	Part Number	Operating Freq. Range (MHz)	Supply Voltage (V)	Control Voltage Range (V)	Control Voltage Sensitivity (MHz/V)	Output Level (dBm)	Power Consumption (mA max.)	Audio Modulation Sensitivity (1) (mVrms)	S/N (2) (dBc min.)	C/N (3) (dBc/Hz min.)	
ADC	Tx	MQE001-836	836.5±12.5	4.2±0.25	1.0-4.0	≧ 9.0	≧ -4.0	6.5	124-248 (± 8)	52 (± 8)	110 (25)
		MQE501-836	836.5±12.5	4.3±0.25	1.0-4.0	≧ 11.0	≧ -1.0	7.0	124-248 (± 10)	52 (± 8)	114 (60)
	Rx	MQE001-926	926.5±12.5	4.2±0.25	1.0-4.0	≧ 10.0	≧ -5.0	6.5	—	52 (± 8)	110 (25)
		MQE501-926	926.5±12.5	4.5±0.25	0.7-4.3	≧ 8.5	≧ -5.0	7.0	—	52 (± 8)	109 (30)
		MQE001-964	964.5±12.5	4.2±0.25	1.0-4.0	≧ 9.0	≧ -5.0	8.0	—	52 (± 8)	110 (25)
GSM	Tx	MQE043-964A	964.5±12.5	3.2±0.25	1.0-3.0	≧ 13.0	≧ -6.0	8.0	—	52 (± 8)	100 (60)
		MQE001-902	902.5±12.5	4.2±0.25	1.0-4.0	≧ 10.0	≧ -3.0	10.0	200-316 (± 3)	45 (± 3)	103 (12.5)
	Rx	MQE502-902	902.5±12.5	4.7±0.25	0.8-4.2	≧ 10.0	≧ -1.0	10.0	200-316 (± 3)	45 (± 3)	103 (12.5)
PDC800	Rx	MQE001-1018	1018.5±12.5	4.2±0.20	1.0-4.0	≧ 10.0	≧ -6.0	10.0	—	45 (± 3)	111 (25)
		MQE003-730	730.0±10.0	4.3±0.25	1.0-4.0	≧ 7.0	≧ -10.0	6.0	—	45 (± 3)	114 (50)
		MQE001-820	820.0±10.0	4.2±0.25	1.5-3.5	≧ 12.0	≧ -6.0	7.0	—	45 (± 3)	115 (50)
PDC1500	Rx	MQE570-820	820.0±10.0	2.3±0.23	0.5-2.5	≧ 13.0	≧ -8.0	6.0	—	48 (± 3)	121 (100)
		MQE523-1619	1619.0±12.0	3.0±0.25	0.5-2.5	≧ 39.0	≧ -6.0	11.0	—	—	107 (50)
		MQE535-1619	1619.0±12.0	2.2±0.20	1.0-2.0	≧ 33.5	≧ -4.0	10.0	—	33 (± 3)	113 (100)

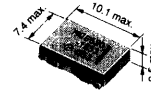
(1) ( ) = Deviation (kHz) (2) ( ) = Sound level (kHz) (3) ( ) = Separation (kHz)

## MICROWAVE OSCILLATORS (VCO)

### VCO for Digital Cordless Phone Systems



MQE000 Type



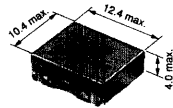
MQE500 Type

(in mm)

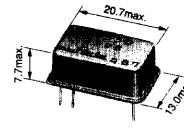
Application	Part Number	Operating Freq. Range (MHz)	Supply Voltage (V)	Control Volt. Range (V)	Control Volt. Sensitivity (MHz/V)	Output Level (dBm)	Power Consumption (mA max.)	Audio Modulation Sensitivity (1) (mVrms)	S/N (2) (dBc min.)	C/N (3) (dBc/Hz min.)
DECT	Tx *MQE030-1890	1890.0±15.0	3.0±0.25	0.5-2.5	≧15.0	≧-5.0	10.0	—	—	95 ( 50)
	MQE030-1780	1780.0±15.0	3.0±0.25	0.5-2.5	≧15.0	≧-5.0	10.0	—	—	100 ( 50)
	MQE030-1835	1835.0±65.0	3.0±0.25	0.5-2.5	≧65.0	≧-5.0	15.0	—	—	90 ( 50)
PHS	Rx MQE520-1653	1652.5±17.5	2.3±2.30	0.3-2.0	≧21.0	≧-6.0	8.0	—	—	97 ( 25)
	*MQE520-1658	1658.0±12.0	3.0±0.25	0.5-2.0	≧25.0	≧-5.0	8.0	—	—	116 (150)

(1) ( ) = Deviation (kHz) (2) ( ) = Sound level (kHz) (3) ( ) = Separation (kHz)  
\* under development

### VCO for The Other Systems



MQE000/700 Type



MQC500 Type

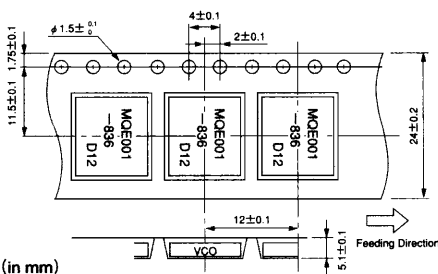
(in mm)

Application	Part Number	Operating Freq. Range (MHz)	Supply Voltage (V)	Control Volt. Range (V)	Control Volt. Sensitivity (MHz/V)	Output Level (dBm)	Power Consumption (mA max.)	Audio Modulation Sensitivity (1) (mVrms)	S/N (2) (dBc min.)	C/N (3) (dBc/Hz min.)
GPS	Rx MQC530-1395	1395.0± 4.5	5.0±0.25	1.0-4.0	≧3.0	≧-2.0	20.0	—	—	85 ( 10)
	MQE030-1399	1399.0± 2.0	3.0±0.25	0.5-2.5	≧3.0	≧-5.0	10.0	—	—	90 ( 10)
	MQC530-1485	1485.4± 3.0	4.5±0.20	1.0-4.0	≧2.0	≧-3.0	15.0	—	—	75 ( 1)
MCA/DMCA	Tx MQC531-1465	1465.0±12.0	7.3±0.25	2.0-6.5	≧5.5	≧2.0	25.0	200- 500 (±6)	50 (±3)	114 (25)
Rx	MQC530-1586	1586.5±12.5	7.5±0.50	1.5-6.0	≧5.56	≧0.0	25.0	—	40 (±3)	113 (25)
LMR	Tx MQE001- 815	815.5± 9.5	5.0±0.25	1.5-3.5	≧10.0	≧-3.0	7.0	124- 248 (±8)	52 (±8)	110 (25)
Radio Transceiver	Tx MQE746- 426	426.5± 0.5	2.0±0.20	0.5-1.5	≧9.0	≧-6.0	7.0	60- 140 (±1.5)	40 (±1.5)	101(12.5)
	MQE744- 429	429.0± 1.0	3.0±0.20	0.5-2.5	≧2.0	≧-3.0	10.0	253- 455 (±3.5)	45 (±3)	107(12.5)
	MQE744- 430	431.0± 9.5	3.0±0.30	0.5-2.7	≧10.0	≧-6.0	7.0	60- 140 (±1.5)	40 (±1.5)	103(12.5)
	MQE501- 808	808.0± 2.0	5.0±0.30	1.0-3.0	≧6.0	≧1.0	10.0	800-1200 (±8)	52 (±8)	109 (25)
	MQE744- 385	386.0± 9.5	3.0±0.30	0.5-2.7	≧10.0	≧-6.0	7.0	—	40 (±1.5)	103 (12.5)
	Rx MQE744- 450	449.7± 1.0	3.0±0.20	0.5-2.5	≧2.0	≧-3.0	10.0	—	45 (±3)	107 (12.5)
MQE001- 754	754.0± 2.0	5.0±0.30	1.0-3.0	≧4.0	≧-6.0	7.0	—	45 (±3)	110 (25)	

(1) ( ) = Deviation (kHz) (2) ( ) = Sound level (kHz) (3) ( ) = Separation (kHz)

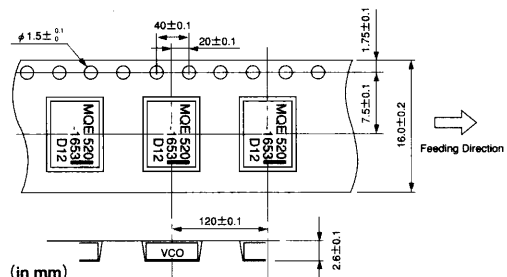
### Taping Specifications

#### MQE000/700 Type



(in mm)

#### MQE500 Type



(in mm)

Minimum Quantity (order in sets only) : 1,000 pcs./reel (φ 330mm)

Minimum Quantity (order in sets only) : 500 pcs./reel (φ 178mm)

EMI SUPPRESSION FILTERS (EMIFIL®)

FILTERS

VIDEO EQUIPMENT

FUNCTIONAL MODULES HYBRID ICs

POWER SUPPLIES

SENSORS

CAPACITORS

THERMISTORS /RESISTORS

COILS/DELAY LINES /FERRITE CORES

RESONATORS

PIEZO PRODUCTS