

MICROWAVE OSCILLATOR



Microwave Oscillator (VCO)

■VCO for Mobile Telephones and Portable Telephones



MQE000 Type



MQE500/600 Type

(B, C)

*MQE570 Type: 3.0max



MQE900 Type (D)

VCO for Analog Cellular Phone Systems

| Application | | Part Number | Lower Limit of Freq. (MHz max.) | Upper Limit of Freq. (MHz min.) | Supply Voltage (V) | Control Voltage Range (V) | Control Voltage Sensitivity (MHz/V) | Output Level (dBm) | Power Consumption (mA max.) | C/N (*) (dBc/Hz) | Туре | | |
|-------------|-----|-------------|---------------------------------------|---------------------------------------|--------------------------|---------------------------------|---|--------------------------|-----------------------------------|---------------------|-------|-----|----------|
| | | MQE043-964A | 952.0 | 977.0 | 3.2 | 0.5-2.7 | 17±4 | -3±3 | 8.0 | ≧114(60) | (A) | | |
| | Rx | MQE571-967 | 954.0 | 980.0 | 3.6 | 0.7-2.4 | ≧20 | -3±3 | 7.0 | ≥105(30) | (c) | | |
| E-AMPS | | MQE504-964 | 952.0 | 977.0 | 4.0 | 0.8-3.2 | 19±3 | 0±3 | 7.0 | ≩108(25) | (B) | | |
| | Tx | MQE574-836 | 824.0 | 849.0 | 3.7 | 0.5-2.7 | 24±3 | <u>≥</u> -3 | 8.0 | ≧110(25) | (C) | | |
| | 1.8 | MQE505-836 | 824.0 | 849.0 | 4.0 | 0.8-3.2 | 19±3 | 0±3 | 7.0 | ≧108(25) | (B) | | |
| E-TACS | Rx | MQE042-1024 | 1008.4 | 1041.4 | 3.3 | 0.5-2.5 | 23±3.5 | -3 ± 3 | 7.0 | ≥114 (50) | (A) | | |
| | | n. | n. | ПX | MQE042-1016 | 1000.0 | 1033.0 | 3.3 | 0.5-2.7 | 19±3 | ≥-6.0 | 7.0 | ≥107(25) |
| | Tx | MQE042-888 | 872.0 | 905.0 | 3.3 | 0.5-2.7 | 22.5±3 | <u>≩</u> −6.0 | 8.0 | ≧107 (25) | (A) | | |

^{(*)=}Separation (kHz)

(in mm)

VCO for Digital Cellular Phone Systems

| Applic | ation | Part Number | Lower Limit of Freq. (MHz max.) | Upper Limit of Freq. (MHz min.) | Supply Voltage (V) | Control Voltage Range (V) | Control Voltage Sensitivity (MHz/V) | Output Level (dBm) | Power Consumption (mA max.) | C/N (* 2) (dBc/Hz) | Туре |
|---------|---------------|-----------------|---------------------------------------|---------------------------------------|--------------------------|---------------------------------|---|--------------------------|-----------------------------------|------------------------|--------------|
| | Яx | MQE043-964A | 952.0 | 977.0 | 3.2 | 0.5-2.7 | 17±4 | -3±3 | 8.0 | ≧114 (60) | (A) |
| ADC | | MQE571-967 | 954.0 | 980.0 | 3.6 | 0.7-2.4 | ≧20 | -3±3 | 7.0 | ≧105(30) | (C) |
| | | MQE504-964 | 952.0 | 977.0 | 4.0 | 0.8-3.2 | 19±3 | 0±3 | 7.0 | ≧108(25) | ίB. |
| | : : | MQE901-926 | 914.0 | 939.0 | 4.5 | 1.0-3.3 | 18±3 | 0±3 | 8.0 | ≥114(60) | (D) |
| | Tx | MQE574-836 | 824.0 | 849.0 | 3.7 | 0.5-2.7 | 24±3 | ≧3 | 8.0 | ≥110(25) | C: |
| | 1X | MQE505-836 | 824.0 | 849.0 | 4.0 | 0.8-3.2 | 19±3 | 0±3 | 7.0 | ≧108(25) | (B) |
| | | MQE551-1018 | 1001.0 | 1036.0 | 3.8 | 0.6-3.0 | 19±3.8 | -1.5±2.5 | 8.0 | ≧143 (3000) | (B) |
| | Rx | MQE602-1171 | 11:36.0 | 1206.0 | 3.0 | 0.8-2.2 | 65±10 | ≧-5 | 6.0 | ≥ 90 (10) | (B: |
| GSM | нх | MQE902-1171 | 1130.0 | 1212.0 | 4.0 | 0.9-3.1 | 50±12/-8 | 0±3 | 8.0 | ≩ 85(10) | (D) |
| | | MQE901-766 | 742.0 | 790.0 | 3.8 | 0.6-3.0 | 30±5 | -1.5±2.5 | 10.0 | ≥143 (3000) | , D) |
| | Tx (Hi Power) | MQE550-902 | 885.0 | 920.0 | 3.8 | 0.8-2.8 | 24±4.8 | 14±2 | 70.0 | ≥120 (150) | В |
| | Tx | MQE601-902 | 890.0 | 915.0 | 4 7 | 0.8-4.2 | 12±3 | ≧-1 | 10.0 | ≧103 (12.5) | (B) |
| | Rx/Tx | MQE901-925 | 890.0 | 960.0 | 5.0 | 1.0-4.0 | 30±3 | 0±3 | 9.0 | ≥ 95 (10) | (D) |
| | 2nd Lo | MQE961-129 | 129.5 | 129.5 | 2.3 | 0.7-2.2 | ≧3 | -3±3 | 4.5 | ≧118 (50) | (D) |
| DC800 | Rx/Tx | MQE911-819 | 810.0 | 828.0 | 2.2 | 0.5-2.5 | 17±3 | -5±3 | 6.0 | ≧115 50) | (D) |
| | Tx | MQE911-1071 | 1054.5 | 1087.5 | 2.2 | 0.5-2.3 | 30±5 | -4±3 | 7.5 | ≧113 (50) | (D : |
| | 2nd Lo | MQE963-129 | 129.5 | 129.5 | 2 2 | 0.7-2.2 | 4.5±1 | -3±3 | 5.0 | ≧118 (50) | (D) |
| PDC1500 | Tx | MQE961-178 * 1 | 178.0 | 178.0 | 22 | 0.7-2.2 | 5.5±1.5 | -3±3 | 5.0 | ≧117 (50) | (D) |
| | Rx/Tx | MQE924-1619 * 1 | 1607.0 | 1631.0 | 2.2 | 1.0-2.0 | 39±5 | -5±3 | 8.0 | ≧105 (50) | D |
| | Tx (Hi Power) | MQE524-1747 | 1707.0 | 1788.0 | 3.8 | 0.8-2.8 | 50±5 | 10.5±1.5 | 45.0 | ≧118 (150) | В |
| DCS1800 | Rx | MQE920-1655 | 1614 0 | 1697.0 | 3.6 | 0.5-3.1 | 42±5 | -1.5±2.5 | 10.0 | ≥140 (3000) | (D: |
| | Rx | MQE920-1668 | 1627.0 | 1710.0 | 3.8 | 0.5-3.1 | 44±6 | 0±3 | 10.0 | ≥ 80 (10) | (D) |
| | Tx (Hi Power) | MQE524-1880 | 1847.0 | 1913.0 | 3.8 | 0.8-2.8 | 50±5 | 10.5±1.5 | 45.0 | ≧118(150) | (B) |
| PCS | Rx | MQE920-1774 | 1739.0 | 1809.0 | 3.6 | 0.5-3.1 | 38±4 | -1.5±2.5 | 10.0 | ≥140 (3000) | (D) |

^{(*1)=}under development (*2)=Separation (kHz)

■VCO for PHS

(in mm)



MQE900 Type

| Application | | Part Number | Lower Limit of Freq. (MHz max.) | Upper Limit of Freq. (MHz min.) | Supply Voltage (V) | Control Voltage Range (V) | Control Voltage Sensitivity (MHz/V) | Output Level (dBm) | Power Consumption (mA max.) | C/N (*) (dBc/Hz) |
|-------------|-------|-------------|---------------------------------------|---------------------------------------|--------------------------|---------------------------------|---|--------------------------|-----------------------------------|---------------------|
| | | MQE981-1668 | 1651.2 | 1684.8 | 2.8 | 0.6-2.1 | 35±5 | ≥-6 | 7.0 | ≧113(150) |
| PHS | | MQE984-1668 | 1651.0 | 1685.0 | 2.1 | 0.5-2.5 | 27±4 | -3±3 | 7.0 | ≧113 (150) |
| | Rx/Tx | MQE986-1668 | 1651.2 | 1684.8 | 3.0 | 0.5-2.5 | 28±6 | ≧-6 | 7.0 | ≧103 (50) |
| | 1 | MQE987-1668 | 1651.2 | 1684.8 | 2.8 | 0.6-2.3 | 34±5 | ≧6 | 6.0 | ≥110(100) |

^{(*)=}Separation (kHz)

■VCO for The Other Systems







MQG100 Type

(in mm)

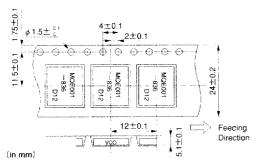
MQE570 Type

| Application | | Part Number | Lower Limit of Freq. (MHz max.) | Upper Limit of Freq. (MHz min.) | Supply Voltage (V) | Control Voltage Range (V) | Control Voltage Sensitivity (MHz/V) | Output Level (dBm) | Power Consumption (mA max.) | C/N (*) (dBc/Hz) | Туре |
|-------------|-----------|-------------|---------------------------------------|---------------------------------------|--------------------------|---------------------------------|---|--------------------------|-----------------------------------|---------------------|------|
| GPS | ·Rx | MQE570-1397 | 1393.7 | 1401.7 | 3.0 | 0.5-2.5 | 12 <u>±</u> 5 | 1±3 | 10.0 | ≥ 90 (10) | (B) |
| Radior | Rx | MQE744-385 | 376.5 | 395.5 | 3.0 | 0.5-2.7 | 12±2 | -3±3 | 7.0 | ≧103 (12.5) | (A) |
| | Tx | MQE744-411 | 400.5 | 422.3 | 3.0 | 0.3-2.8 | 16±2.5 | -3±3 | 7.0 | ≥102(12.5) | (A |
| Transceiver | | MQE744-430 | 421.5 | 440.5 | 3.0 | 0.5-2.7 | 12±2 | -3 ± 3 | 7.0 | ≧103(12.5) | (A) |
| | Rx/ Tx | MQG101-2098 | 2058.0 | 2138.0 | 3.0 | 0.5-2.5 | ≧40 | ≧2 | 12.0 | ≥ 90 (25) | (C) |
| | | MQG101-2120 | 2090.0 | 2150.0 | 4.8 | 0.5-4.5 | 30±9 | 1±3 | 15.0 | ≧105 (100) | (C) |
| | | MQG101-2145 | 2122.0 | 2167.0 | 4.8 | 0.5-4.0 | 32±9 | 1±3 | 15.0 | ≥105(100) | (C) |
| W-LAN | | MQG101-2152 | 2100.0 | 2204.0 | 3.3 | 0.5-3.0 | ≧42 | ≧-6 | 12.0 | ≥ 85(10) | (C) |
| | | MQG101-2204 | 2184.0 | 2224.0 | 5.0 | 1.0-4.0 | ≧14 | <u>≩</u> -5 | 12.0 | ≥ 90 (25) | (C) |
| | | MQG101-2310 | 2270.0 | 2350.0 | 5.0 | 1.0-4.0 | ≧27 | ≧-5 | 12.0 | ≧ 90 (25) | (C) |

(*)=Separation (kHz)

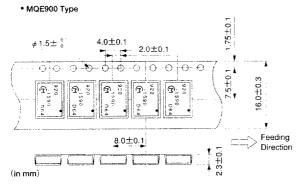
■Taping Specifications

• MQE000/700 Type



Minimum Quantity (order in sets only):

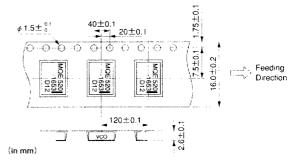
1,000 pcs./reel (\$\phi\$ 330mm)



■Minimum Quantity (order in sets only):

3.000 pcs./reel (\$\phi\$ 330mm)

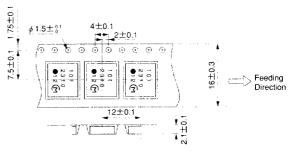
• MQE500/600 Type



■Minimum Quantity (order in sets only):

500 pcs./reel (φ 178mm)

MQG100 Type



(in mm)

Minimum Quantity (order in sets only):

500 pcs./reel (φ 178mm)