

**SERIAL PRODUCTION OF THREE-, FOUR- AND FIVE-POLE
MONOLITHIC MICROWAVE FILTERS**

Part number	Central frequency, MHz	Band pass, MHz	Insertion loss, dB, not more	Cutoff (dB) min, MHz	Bandpass flatness dB max	VSWR not more	Overall dimensions, mm
3PM1344E37B	1334,0	20	1,0	40,0 dB ± 66,0	1,0	1,0	18,5 x 6,5 x 9,3
3PM1555E37B	1555,0	4	8,0	40,0 dB ± 55,0	3,0	1,9	18,4 x 7,0 x 8,5
3PM1589E37B	1590,0	40	1,5	40,0 dB ± 180,0	1,0	1,6	18,4 x 7,0 x 8,8
3PM1189E37B	1189,5	51	1,5	35,0 dB ± 175,0	3,0	1,5	12,5 x 4,5 x 12,0
4PM1575E37B	1575,0	20	4,5	35,0 dB ± 45,0	1,1	1,5	17,0 x 4,8 x 9,1
4PM1602E37B	1601,5	17	4,5	40,0 dB ± 100,0	1,1	1,5	17,0 x 4,8 x 9,1
4PM836E37B	838,0	35	3,0	60,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 15,0
4PM881E37B	881,0	35	3,0	60,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 14,7
4PM897E37B	897,0	35	3,0	60,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 14,7
4PM942E37B	942,0	35	3,0	60,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 14,5
4PM1729E37B	1729,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 8,0
4PM1766E37B	1766,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,8
4PM1824E37B	1824,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,6
4PM1861E37B	1861,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,4
4PM1865E37B	1865,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,4
4PM1895E37B	1895,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,2
4PM1945E37B	1945,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 7,0
4PM1975E37B	1975,0	38	3,0	45,0 dB ± 100,0	1,0	1,5	25,0 x 6,8 x 6,8
4PM2245E37B	2245,0	90	1,0	20,0 dB ± 100,0	0,5	1,3	25,0 x 6,0 x 7,0
5PM1575E37B	1575,0	20	4,0	43,5 dB ± 45,0	1,0	1,5	31,0 x 7,0 x 9,0
5PM1601E37B	1600,5	15	4,5	43,5 dB ± 45,0	1,0	1,5	31,0 x 7,0 x 9,0
5PM1602E37B	1601,5	17	4,0	43,5 dB ± 43,5	1,0	1,5	31,0 x 7,0 x 9,0
5PM1588E37B	1588,0	40	2,5	40,0 dB ± 85,0	1,0	1,6	31,0 x 7,0 x 8,5
5PM1589E37B	1590,0	40	2,5	40,0 dB ± 85,0	1,0	1,6	31,0 x 7,0 x 8,5
5PM1593E37B	1595,5	51	2,5	40,0 dB ± 94,5	1,0	1,6	31,0 x 6,6 x 10,0
5PM1238E37B	1248,5	27	2,5	40,0 dB ± 88,5	1,0	1,6	31,0 x 6,6 x 10,0
5PM2068E37B	2067,5	83	1,5	30,0 dB ± 130,0	0,8	1,4	31,0 x 7,0 x 7,0
5PM1736E37B	1756,0	16	4,0	40,0 dB ± 47,0	1,0	1,5	31,0 x 6,9 x 8,1
5PM1783E37B	1783,3	11	4,0	35,0 dB ± 47,0	1,0	1,5	31,0 x 6,6 x 8,1
5PM1796E37B	1796,3	13	4,0	40,0 dB ± 60,0	0,3	1,5	31,0 x 6,9 x 7,9

PRODUCTION OF CERAMIC MICROWAVE FILTERS



Institute of Computer Technologies offers a wide range of monolithic and compound bandpass ceramic microwave filters.

When manufacturing microwave filters, IKT uses high-quality heat-stable ceramic materials based on aluminum oxides, barium titanate, titanium, zinc, etc. This allows us to use our products as parts of radio electronic devices with signal power up to 15 W at frequencies up to 10 GHz in a wide temperature range.

Metallization of ceramic resonators is carried out with special compositions, providing the best electrical properties and mechanical strength. This enables soldering method without the use of low-melting solders and special means, and also glue mounting of microwave filters.

Advantages of IKT microwave filters:

- Small size and light weight
- Wide operating frequency range (from 0.7 to 2.6 GHz) and temperatures (-60 .. + 85 °C)
- Low bandwidth loss (from 0.5 to 4.5 dB)
- Mechanical strength and high reliability

Compound microwave filters for surface mounting on printed circuit boards:

Part number	Central frequency, MHz	Band pass, MHz	Insertion loss, dB, not more	Cutoff (dB) min, MHz	Bandpass flatness dB max	VSWR not more	Overall dimensions, mm
1225B3	1223,0	62	1,4	40,0 dB ± 177,0	1,0	1,5	8,3 x 3,65 x 7,0
1583B3	1587,5	90	1,4	32,0 dB ± 162,5	1,0	1,5	8,3 x 3,65 x 5,4
1238B2	1242,5	35	1,5	35,0 dB ± 227,5	0,5	1,5	8,2 x 4,4 x 12,2
1238B4	1242,5	35	3,0	40,0 dB ± 97,5	1,0	1,6	4,9 x 12,2 x 16,2
1589B2	1587,5	45	1,5	26,5 dB ± 300,0	0,5	1,5	8,2 x 4,9 x 9,8
1589B4	1587,5	45	3,0	40,0 dB ± 147,5	1,0	1,5	17,2 x 4,9 x 9,8
H3804M	1236,0	36	2,6	40,0 dB ± 86,0	1,0	2,2	16,2 x 4,5 x 12,2
H8504M	1587,5	45	2,6	40,0 dB ± 117,5	1,0	2,2	16,2 x 4,5 x 9,6

The stages of quality control of microwave filters (in accordance with the requirements of GOST 25360-82):

- Solderability monitoring after storage
- Checking the mass and electrical parameters
- Mechanical strength test by sinusoidal vibration
- Mechanical strength test during transportation
- Functional test at high operating temperature (+85 °C)
- Functional test at low operating temperature (-55 °C);
- Functional test in temperature changing conditions (-60 to +90 °C).

IKT offers services in design and manufacture of microwave filters according to the technical task of the customer.