

Microstrip Directional Couplers

- ◆ **Wideband**
- ◆ **Directivity 15-25 dB**
- ◆ **Built-in matched load**
- ◆ **Small size and weight**



DESCRIPTION

Designed for directional coupling of signal electromagnetic energy.

They are used in signal power control circuitry, in mixing and multiplying units, in combined devices. The couplers may be used as power dividers with the specified division ratio.

IEM "KVARZ" manufactures two options of the couplers:

- as separate pc boards (option 1);
- in a package with hermetically sealed SMA connectors or type IX in accordance with GOST 13317-89 for a coaxial channel (option 2).

Microstrip directional couplers delivered as separate boards (option 1) are used for building them into RF units manufactured as hybrid ICs.

SPECIFICATIONS

Option 1 (separate-substrate)	Option 2 (substrate in a hermetically sealed package)	Frequency range, GHz	Coupling, dB	Coupling frequency sensitivity, dB	Directivity, dB	Insertion loss, dB (option 2)	VSWR (option 2)	Dimensions, mm (option 1)	Dimensions, mm (option 2)
	60952-01	0.1-1,5	24(0.1 GHz) 13±1 (0.3-1.5 GHz)	±2 (0.3-1.5 GHz)	25	0.6	1.25	-	76.2x38.2x17.5
	68018*	0.25-2	12±1	+0.9	18	0.9	1.25	-	141.6x29.5x14
60302	68015	1-2	20+1	±0.7	20-23	0.5	1.25	30x20x1	50.2x34.1x14.5
60303	68016	2-4	20±1	±0.7	20	0.5	1.30	30x20x1	50.2x34.1x14.5
60305	68004	4-8	20±1	±0.7	16	0.6	1.35	15x15x0.5	35.2x29.1x14.5
60307	68017	1.5-4.5	10±1	±0.6	16	0.8	1.35	30x20x1	50.2x34.1x14.5
60304	68009	3-8.3	10±1	+0.6	16	0.8	1.40	24x15x0.5	44.2x29.1x14.5
87174	68011	1-6	12±1	±0.75	13-15	0.8	1.35	36x15x1	56.2x29.1x14.5
87171	68008	2-12	12±1	±0.75	13-15	1.2	1.5	24x15x0.5	44.2x29.1x14.5
87172**	-	8-18	10±1	+0.90	13-15	-	-	15x15x0.5	-

* 0.2-2 GHz frequency range is overlapped at +0.3 dB coupling additional increase at 0.2 GHz

** by customer order it is possible to manufacture in a sealed package