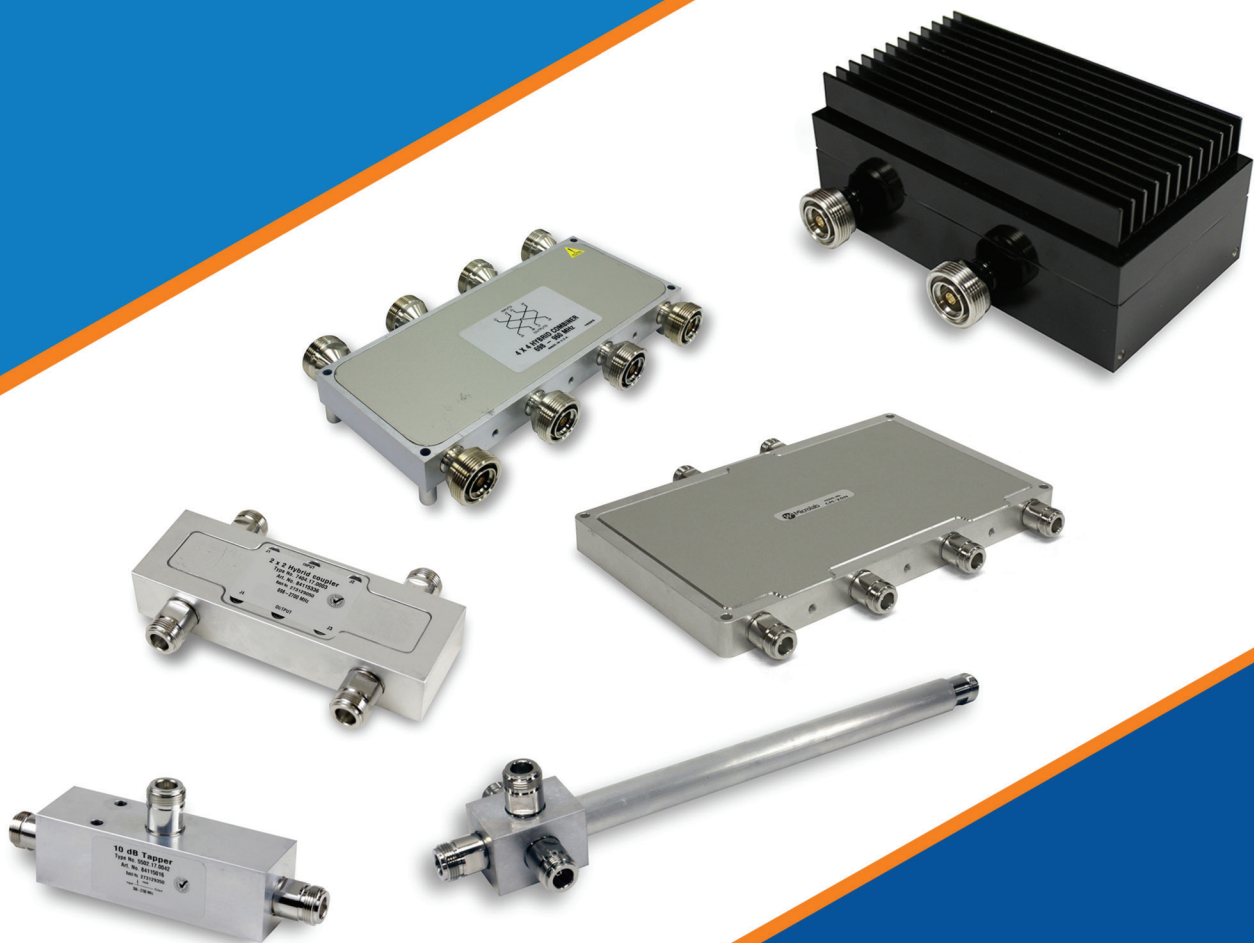
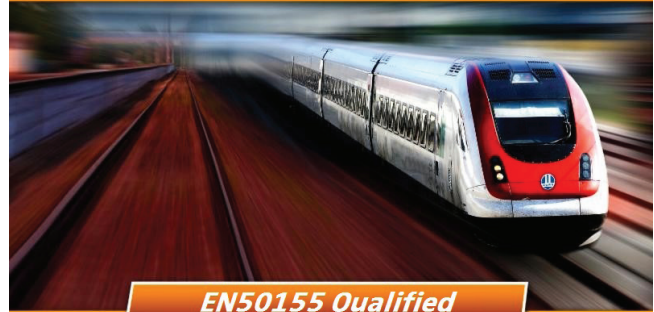


Microlab Transportation Products



Microlab manufactures high-performance RF and Microwave components known worldwide as the gold standard in RF and Microwave distribution systems. **Microlab** products are used in a wide range of applications including, in-building architecture, military, outdoor, and moving applications.



Microlab offers Transportation Applications products that meet the mechanical and electrical strains of rail networks. **Microlab EN50155** qualified products have been subjected to a series of environmental, safety, and electrical performance tests to validate compliance with EN50155 "Railway Applications-Electronic Equipment used on rolling stock".

The EN50155 standard defines and calls on many other standards for the design and operation requirements to withstand the challenges in railway applications. This ensures robust wireless and public safety services to trains and buses.

EN50155 compliance requirements include the following:

Environmental

- Vibration, Shock and Bump Test
- Cooling Test
- Dry Heat Test
- Damp Heat Cycling Test
- Low Temperature Test
- Salt Mist Test
- Voltage withstanding Test
- Insulation Measurement Test

The EN50155 standard is vital to transportation to ensure reliability and safety. **Microlab** trusted EN50155 qualified products have been designed and manufactured to operate over harsh environmental conditions, and offer unique electrical and mechanical performance.

Multiband Combiners

Model	Port #1	Port #2	Port #3	Power/Input (W)	Conn. Type	Outdoor	PIM (dBc,dBm)
BK-10N	694-960	1710-2170	--	20	N	No	-140,-100
BK-10NP	694-960	1710-2170	--	20	N	Yes	-140,-100
BK-12D	80-960	1710-2700	--	120	7/16 DIN	No	-155,-112
BK-12DP	80-960	1710-2700	--	120	7/16 DIN	Yes	-155,-112
BK-12N	80-960	1710-2700	--	120	N	No	-155,-112
BK-12NP	80-960	1710-2700	--	120	N	Yes	-155,-112
BK-12E	80-960	1710-2700	--	120	4.3-10	No	-155,-112
BK-12EP	80-960	1710-2700	--	120	4.3-10	Yes	-155,-112
BK-21N	80-2170	2400-2500	--	150/8	N	No	-153,-110
BK-21D	80-2170	2400-2500	--	150/8	7/16 DIN	No	-153,-110
BK-21E	80-2170	2400-2500	--	150/8	4.3-10	No	-153,-110
BK-21NP	80-2170	2400-2500	--	150/8	N	Yes	-153,-110
BK-21DP	80-2170	2400-2500	--	150/8	7/16 DIN	Yes	-153,-110
BK-21EP	80-2170	2400-2500	--	150/8	4.3-10	Yes	-153,-110
BK-24N	80-520 694-800	800-2700	--	120/50	N	No	-161,-118
BK-24D	80-520 694-800	800-2700	--	120/50	7/16 DIN	No	-161,-118
BK-24E	80-520 694-800	800-2700	--	120/50	4.3-10	No	-161,-118
BK-24NP	80-520 694-800	800-2700	--	120/50	N	Yes	-161,-118
BK-24DP	80-520 694-800	800-2700	--	120/50	7/16 DIN	Yes	-161,-118
BK-24EP	80-520 694-800	800-2700	--	120/50	4.3-10	Yes	-161,-118
BK-26N	80-2690	3300-5850	--	50/5	N	No	-150,-107
BK-38N	380-2170	2400-2690	3300-5825	40/10/10	N	No	-150,-107
BK-62N	80-2170	2400-2500 4900-5850	--	50/10	N	No	-161,-118
BK-62E	80-2170	2400-2500 4900-5850	--	50/10	4.3-10	No	-161,-118
BK-67N	80-2180	2490-2690	--	150/5	N	No	-140,-100
BK-81N	80-2170	2400-2500	--	150/8	N	Yes	-153,-110

Wilkinson Splitters

Model	Frequency (MHz)	Split Loss	No. of Ways	Power/Input (W)	Conn. Type	Outdoor	PIM (dBc,dBm)
D2-72FE	694-2700	3dB	2-way	50	4.3-10	No	-154,-111
D3-72FE	694-2700	4.8dB	3-way	50	4.3-10	No	-154,-111
D4-72FE	694-2700	6dB	4-way	50	4.3-10	No	-154,-111
D2-72FN	694-2700	3dB	2-way	50	N	No	-154,-111
D3-72FN	694-2700	4.8dB	3-way	50	N	No	-154,-111
D4-72FN	694-2700	6dB	4-way	50	N	No	-154,-111
D2-75FN	694-2700	3dB	2-way	50	N	No	--
D3-75FN	694-2700	4.8dB	3-way	50	N	No	--
D4-75FN	694-2700	6dB	4-way	50	N	No	--
D8-75FN	694-2700	9dB	8-way	50	N	No	--

Hybrid Combiners

Model	Frequency (MHz)	Coupling	Ports In:Out	Power/Input (W)	Conn. Type	Outdoor	PIM (dBc,dBm)
CA-84N	694-2700	3dB	2:2	80	N	No	-161,-118
CA-84D	694-2700	3dB	2:2	80	7/16 DIN	No	-161,-118
CA-84E	694-2700	3dB	2:2	80	4.3-10	No	-161,-118
CA-84NP	694-2700	3dB	2:2	80	N	Yes	-161,-118
CA-84DP	694-2700	3dB	2:2	80	7/16 DIN	Yes	-161,-118
CA-84EP	694-2700	3dB	2:2	80	4.3-10	Yes	-161,-118
CA-84GN	694-2700	3dB	2:2	80	N	No	--
CA-84GD	694-2700	3dB	2:2	80	7/16 DIN	No	--
CA-94N	380-520	3dB	2:2	100	N	No	-161,-118
CA-94D	380-520	3dB	2:2	100	7/16 DIN	No	-161,-118
CA-94E	380-520	3dB	2:2	100	4.3-10	No	-161,-118
CA-94NP	380-520	3dB	2:2	100	N	Yes	-161,-118
CA-94DP	380-520	3dB	2:2	100	7/16 DIN	Yes	-161,-118
CA-94EP	380-520	3dB	2:2	100	4.3-10	Yes	-161,-118
CA-88N	694-2700	3dB	2:2	200	N	No	-161,-118
CA-88D	694-2700	3dB	2:2	200	7/16 DIN	No	-161,-118
CA-88E	694-2700	3dB	2:2	200	4.3-10	No	-161,-118
CA-14D	350-5850	3dB	2:2	200	7-16	No	-161,-118
CA-14E	350-5850	3dB	2:2	200	4.3-10	No	-161,-118
CA-14N	350-5850	3dB	2:2	200	N	No	-161,-118

Tappers

Model	Frequency (MHz)	Ratio, nominal	Output Inequality	Power/Input (W)	Conn. Type	Outdoor	PIM (dBc,dBm)
DN-34FN	350-5850	2:1	3.0dB	500	N	No	-161,-118
DN-44FN	350-5850	3:1	4.8dB	500	N	No	-161,-118
DN-54FN	350-5850	4:1	6.0dB	500	N	No	-161,-118
DN-64FN	350-5850	6:1	8.0dB	500	N	No	-161,-118
DN-74FN	350-5850	10:1	10dB	500	N	No	-161,-118
DN-84FN	350-5850	20:1	13dB	500	N	No	-161,-118
DN-94FN	350-5850	30:1	15dB	500	N	No	-161,-118
DN-04FN	350-5850	100:1	20dB	500	N	No	-161,-118
DN-14FN	350-5850	1000:1	30dB	500	N	No	-161,-118

GPS Passive Splitters

Model	Frequency (MHz)	Split Loss	No. of Ways	Power/Input (W)	Conn. Type	Outdoor	Amplitude Balance
D2-42FN	1100-1700	3dB	2-way	0.25	N	Yes	<0.3dB
D4-42FN	1100-1700	6dB	4-way	0.25	N	Yes	<0.3dB
D8-42FN	1100-1700	9dB	8-way	0.25	N	Yes	<0.3dB