BROADBAND: RF & WIRELESS

Pulse offers a comprehensive line of RF magnetic components for use in wireless and RF applications, including mobile communications, cable television, hybrid fiber/coax (HFC) equipment, cable modems, set-top boxes, and home networking. The components are also used in RF medical and industrial equipment.

Platforms include wirewound chip inductors, transformers/baluns, low-pass filters, diplex filters, directional couplers and RF splitter/combiners. These surface mount and through hole components have minimal insertion loss and excellent return loss to ease the development and manufacturing of today's RF network equipment.

***NOTE:** RoHS compliant versions of some of the products offered in this section are available. For more information, call and ask for "Broadband RF and Wireless Applications." Local telephone numbers are on the back cover of this catalog. Or, you can send an e-mail to prodinfo_telecom@pulseeng.com.

RF, HFC & CATV APPLICATIONS

Low Pass Filters

Part Number	In/Out Impedance	Passband (MHz)	Insertion Loss (dB MAX)	Return Loss (dB MIN)	Data Sheet
B5004	75 Ω	5-42	1.0	18.0	B907
B5005	75 Ω	5-65	1.0	17.5	B907
C5001	150Ω	1-50	1.2	15.0	C209
C5003	150 Ω	1-80	1.2	15.0	C209
C5005	75 Ω	1-59.5	1.0	15.0	C209
CX5013	75 Ω	1-65	1.5	15.0	C209
C5002	50 Ω	1-49	1.0	16.0	C208

Diplex Filters

Part Number	Frequency [1] (MHz)	Insertion Loss (dB)	Return Loss (dB)	Data Sheet
CX6006L	5-65 / 85-870	<1.2	16 or better	C213
CX6006	5-65 / 85-870	<1.2	18 or better	C213
CX6008	5-65 / 85-864	1.0 TYP	14 / 9 [1]	C216
C6026 [3]	5-44 / 58-860	<1.5	12 or better	C236
CX6026	5-44 / 58-860	<1.5	12 or better	C236
C6039	5-860 / 975-1525	<2.0	10 or better	C250
CX6007	5-42 / 88-864	<1.0	14 or better	C211
C6035 [3]	5-42 / 88-860	<1.5	12 or better	C236
CX6002	5-42 / 54-864	<1.5	14 / 9 [1]	C230
CX6020 [2]	5-42 / 54-864	<1.5	14 / 9 [1]	C230
C6001	5-42 / 52-870	<1.0	20 or better	C204
C6001L [4]	5-42 / 52-870	<1.0	20 or better	C204
SF9023	5-42 / 52-750	<1.5	18 or better	C202
C6036NL [3,5]	10-55 / 90-770	<1.5	12 or better	C236
C6086NL [3,5]	5-65 / 108-860	<1.5	12 or better	C236

1. ***Low** Pass Port / High Pass Port*
2. ***Leadless***
3. ***Coaxial** F-connector integrated*
4. ***L =** Low cost*
5. ***NL =** Lead-free*

Directional Couplers

Part Number	Frequency (MHz)	Z (Ω)	Coupling Nom. (dB ±0.5)	Mainline Loss (dB TYP)	Data Sheet
A5807	5-900	75	10.0	1.1	A102
A5808	5-900	75	7.5	1.6	A102
A5809	5-900	75	12.0	0.9	A102
A5816	5-900	75	16.0	0.8	A102
A5908	5-900	75	7.5	1.6	A102
A5910	5-900	75	10.0	1.1	A102
A5912	5-900	75	12.0	0.9	A102
A5916	5-900	75	16.0	0.8	A102
C3027	5-900	75	16.0	0.6	C207
C3108	5-900	75	7.5	1.6	C243
CX3039	5-1000	75	20.0	0.5	C221
CX3042	5-1000	75	6	1.76	C243
CX3099	10-1000	50	16.0	0.8	C234

RF Splitter/Combiners: 2-Way, 0°

Part Number	Frequency (MHz)	Isolation (dB TYP)	Return Loss (TYP)	Insertion Loss (dB TYP)	Data Sheet
C4020 [1]	96-864	25	9	1.7	C222
CX4004	5-65	40	30	0.22	C212
CX4004L [2]	5-65	40	30	0.22	C212
CX4005	5-250	24	27	0.45	C226
C4006	5-1000	27	24	0.48	C223
CX4011	5-1000	25	26	0.65	C218
C4036	5-1000	25	31	0.48	C241
CX4012L [2]	5-1000	20	16	0.65	C220
CX4024	5-1000	30	30	0.8	C220
CX4012	40-1000	27	22	0.65	C220

1. ***Differential** splitter/combiner*
2. ***L = Low cost***

FIBRE CHANNEL (SAN)

Dual Serial Data Interface Transformers

Part Number	Turns Ratio	Package Style [1]	Package L/W/H (in.) *	Data Sheet
A6801	1CT:1CT	16-pin SOIC	.500 / .295 / .220	A100
A6802	1:1	16-pin SOIC	.500 / .295 / .220	A100
PE-65507NL [2]	1:1	16-pin SOIC	.500 / .270 / .220	A101
PE-65508NL [2]	1:1	16-pin SOIC	.500 / .270 / .220	A101

1. ***SOIC** = 50 mil pitch lead spacing*
2. ***NL =** Lead-free*

IEEE 1394

Common Mode Choke

Part Number	No. of Lines	Inductance OCL (µH MIN)	Package L/W/H (in.) *	Data Sheet
A1801	2	3	.290 / .240 / .150	A104

SMT - Surface Mount Package **THT** - Through Hole Package

***Length and width** are MAX package dimensions. Height includes the wash area.

BROADBAND: RF & WIRELESS

RF, HFC & CATV APPLICATIONS *(continued)*

Wideband RF Transformers

Part Number	Impedance Ratio	Bandwidth (MHz TYP) 3 dB	2 dB	1 dB	Package Style	Data Sheet
CX2068	1:12.25	0.1-150	0.5-100	1.5-50	THT	C206
C2139NL[3]	1:1	—	—	5-1000	SMT[2]	C244
CX2148	1:1	—	—	5-500	SMT	C224
CX2148A	1:1	—	—	5-500	SMT	C224
CX2149	1:1	—	Up to 1500	10-1200	SMT[2]	C217
CX2155	1:1	—	—	5-500	SMT	C238
CX2156	1:1	—	—	2.3-2700	SMT	C215
CX2024	1:1	—	Up to 1500	10-1200	SMT[2]	C217
CX2038L[1]	1:1	—	Up to 1500	4.5-1000	SMT[2]	C203
CX2039L[1]	1:1	—	Up to 1500	4.5-1000	SMT[2]	C203
CX2040L[1]	1:1	1.5-500	2.5-400	5-350	SMT[2]	C203
CX2041	1:1	0.05-450	0.75-300	0.1-200	SMT[2]	C203
CX2050	1:1	0.15-400	—	—	6-pin SMT	C206
CX2060	1:1	0.15-400	—	—	6-pin THT	C206
CX2072	1:1		Up to 1500	10-1000	5-pin SMT	C227
CX2078	1:1	—		5-500	5-pin SMT	C215
CX2076	1:1	—	Up to 2150		SMT[2]	C233
CX2043L[1]	1:1.5	—	—	1-1000	SMT[2]	C203
CX2044L[1]	1:1.5	—	1-500	5-100	SMT[2]	C203
CX2081	1:1.5 CT	5.0-125	—	—	5-pin SMT	C215
CX2039	1:1 (50 Ω)	—	Up to 1500	4.5-1000	SMT[2]	C203
CX2038	1:1 (75 Ω)	—	Up to 1500	4.5-1000	SMT[2]	C203
CX2052	1:1CT	0.08-200	—	—	6-pin SMT	C206

Part Number	Impedance Ratio	Bandwidth (MHz TYP) 3 dB	2 dB	1 dB	Package Style	Data Sheet
CX2062	1:1CT	0.08-200	—	—	6-pin THT	C206
CX2147	1:1CT	—	—	1-160	SMT	C242
CX2157	1:1CT	0.4-800	0.5-700	1-600	SMT[2]	C232
CX2045L[1]	1:2	—	—	3-300	SMT[2]	C203
CX2047L[1]	1:4	—	.5-300	1.5-100	SMT[2]	C203
C2022	1:4CT	0.100-500	0.150-390	.300-220	6-pin SMT	C200
C2073	1:4CT	—	1-500	1-200	SMT[2]	C224
C2073A	1:4CT	—	1-500	1-200	SMT[2]	C224
CX2032	1:4CT	—	—	5-165	Low Profile	C210
CX2047	1:4CT	—	0.50-300	1.5-100	SMT[2]	C203
CX2054	1:4CT	0.20-350	—	—	6-pin SMT	C206
CX2064	1:4CT	0.20-350	—	—	6-pin THT	C206
CX2065	1:4CT	0.02-250	—	—	6-pin THT	C206
CX2074	1:4CT	—	—	5-170	SMT	C242
CX2158	1:4CT	2-775	3-600	6-250	SMT[2]	C232
CX2049L[1]	1:8	2-500	—	—	SMT[2]	C203
CX2059	1:9	0.15-200	—	—	6-pin SMT	C206
C2020	1CT:1CT	0.150-210	.200-150	.350-90	6-pin SMT	C200
C2042	1CT:1CT	0.30-300	0.40-200	0.5-90	6-pin SMT	C210
CX2029	36:1CT	0.05-21	—	—	SMT[2]	C203
CX2141	4CT:1CT	0.3 - 300	0.4 - 200	0.5 - 90	SMT[2]	C232
CX2142	1:1	—	—	50-870	SMT[2]	C232
C2160	2.65:1	Up to 130	Up to 100	0.40-70	SMT[2]	C232

1. ***L =*** *Low cost*
2. ***Leadless***
3. ***NL =*** *Lead-free*

SMT - Surface Mount Package **THT** - Through Hole Package