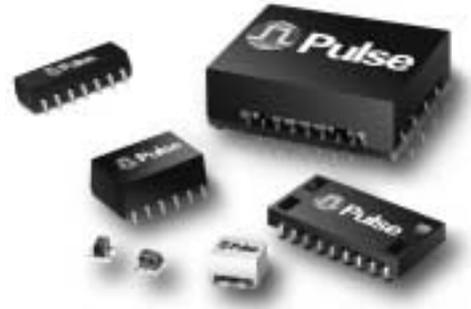# BROADBAND: RF & CABLE

Pulse develops all the necessary magnetic components for use in hybrid fiber coax (HFC) equipment, cable modems, set-top boxes and other RF applications. Components include transformers/baluns, low-pass filters, diplex filters, directional couplers and splitter/combiners. These surface mount and through hole components have minimal insertion loss and excellent return loss to ease the development and manufacture of today's RF network equipment.

RF, HFC & CABLE MODEM 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	150 Ω	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
SF9023	5-42/52-750	<1.5	18 or better	C202
C6001	5-42/52-870	<1.0	20 or better	C204
CX6002	5-42/54-864	<1.5B	14 / 9 [1]	C205
CX6007	5-42/88-864	<1.0	14 or better	C211
CX6008	5-65/85-864	1.0 TYP	14 / 9 [1]	C216

1. Low Pass Port/High Pass Port

Directional Couplers

Part Number	Frequency (MHz)	Z (Ω)	Coupling Nom. (dB ± 0.5)	Mainline Loss (dB TYP)	Data Sheet
A5807T	5 - 900	75	10.0	1.1	A102
A5808T	5 - 900	75	7.5	1.6	A102
A5809T	5 - 900	75	12.0	0.9	A102
A5816T	5 - 900	75	16.0	0.8	A102
A5908T	5 - 900	75	7.5	1.6	A102
A5910T	5 - 900	75	10.0	1.1	A102
A5912T	5 - 900	75	12.0	0.9	A102
A5916T	5 - 900	75	16.0	0.8	A102
C3027	5 - 900	75	16.0	0.6	C207

RF Splitter/Combiners: 2-Way 0°

Part Number	Frequency Range	Isolation (dB TYP)		VSWR (TYP)	Insertion Loss (dB TYP)		Data Sheet
		5-400 MHz	400-1000 MHz		5-400 MHz	400-1000 MHz	
CX4004	5-65 MHz	40		1.06:1	.22		C212
CX4002	5-1000 MHz	30	21	1.1:1	0.5	0.8	C201

Wideband RF Transformers

Part Number	Impedance Ratio	Bandwidth (MHz TYP)			Package Style	Data Sheet
		3 db	2 dB	1 dB		
CX2024	1:1	—	Up to 1500	10-1200	Leadless (0.15 sq)	C217
CX2078	1:1	—		5-500	6-pin SMT	C215
CX2038	1:1; (75 Ω)	—	Up to 1500	4.5-1000	Leadless (0.15 sq)	C203
CX2039	1:1; (50 Ω)	—	Up to 1500	4.5-1000	Leadless (0.15 sq)	C203
CX2040	1:1	1.5-500	2.5-400	5-350	Leadless (0.15 sq)	C203
CX2050	1:1	0.15-400	—	—	6-pin SMT	C206
CX2060	1:1	0.15-400	—	—	6-pin THT	C206
CX2052	1:1CT	0.08-200	—	—	6-pin SMT	C206
CX2062	1:1CT	0.08-200	—	—	6-pin THT	C206
C2020	1CT:1CT	0.150-210	.200-150	.350-90	6-pin SMT	C200
CX2043	1:1.5	—	—	1-1000	Leadless (0.15 sq)	C203
CX2044	1:1.5	—	1.0-500	5-100	Leadless (0.15 sq)	C203
C2022	1:4CT	0.100-500	.150-390	.300-220	6-pin SMT	C200
CX2032	1:4CT	—	—	5-165	Low Profile	C210
CX2047	1:4CT	—	.50-300	1.5-100	Leadless (0.15 sq)	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
CX2059	1:9	0.15-200	—	—	6-pin SMT	C206

FIBRE CHANNEL (SAN)

Dual Serial Data Interface Transformers

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

1. SOIC = 50 mil pitch lead spacing
2. Length and width are MAX package dimensions. Height dimension includes the wash area.

IEEE 1394

Common Mode Choke

Part Number	No. of Lines	Inductance OCL (µH MIN)	Package L/W/H (in.) [1]	Data Sheet
A1801	2	3	.290 / .240 / .150	A104

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

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

Mouser Electronics

Authorized Distributor

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Pulse:

CX4004T CX4004L CX6007 CX6008 CX5013T C5005T C5001T C5001 C5005 C5003 C5002 CX6007T C5003T C5002T CX6008T CX5013 CX4004 CX4004LT