



# New Precision Control Products for Broadband & CATV Networks

Delivering End-to-End Solution Sets  
for Complete Control of Your Network



**qorvo**  
all around you



# Take Control of Your Network with High-Isolation, High-Linearity Performance

Qorvo® leads the CATV solutions market by providing equipment makers with more than 60 DOCSIS® 3.1 ready components. Qorvo's CATV product portfolio offers solutions for every application in the operator's network from headend, optical node, CMTS and CPE.

Now Qorvo is expanding its CATV and broadband portfolio with the launch of a full line of control products, including 75 ohm digital step attenuators (DSA) and RF switches. Using silicon-on-insulator (SOI) process technologies with proven performance and reliability for network control product applications, these new products simplify the task of circuit design and improve time-to-market for network equipment makers.

## Benefits of Qorvo CATV control products include:

- Glitch-free transition between attenuation steps (zero overshoot)
- Serial and parallel control interface
- Fast switching speed (better than 250ns typical)
- Non-reflective, symmetric single-pull double-throw
- Implementation without need for blocking capacitors
- Excellent insertion loss, isolation and dynamic range

## DSA & VCA

Description	Min Freq (MHz)	Max Freq (MHz)	Insertion Loss (dB)	P <sub>IN</sub> (dBmV)	CTB (dBc)	CSO (dBc)	Vcc (V)	Attenuation Range (dB)	Package	Part Number
VCA	5	3000	1.5	38	-75	-80	5	30	QFN 3x3	RFSA3043
VCA	30	3000	2.5	39	-65	-70	5	30	QFN 3x3	RFSA3013
VCA	30	3000	2.7	39	-65	-70	3.3	30	QFN 3x3	RFSA3023
DSA, 0.5 dB Step, Serial/Parallel	45	2000	1.3	45	> -90	-80	5	31.5	QFN 4x4	QPC3624
DSA, 0.5 dB Step, Serial	5	2000	1.5	24	> -90	-80	5	31.5	QFN 4x4	RFSA2654

## Switches

Description	Min Freq (MHz)	Max Freq (MHz)	Insertion Loss (dB)	P <sub>IN</sub> (dBmV)	IP3 (dBm)	IP2 (dBm)	Vcc (V)	Package	Part Number
SPDT	5	6000	0.3	35	75	>100	3	QFN 2x2	RFSW1012
SPDT	5	3000	0.5	35	65	>100	2.5 to 5	QFN 4x4	QPC3024

## Transformers

Description	Min Freq (MHz)	Max Freq (MHz)	Insertion Loss (dB)	Amplitude Balance (dB)	Phase Balance (deg)	Impedance Ratio	Package	Part Number
1:2.78 SMT Transformer	45	1218	2.2	0.4	13.0	1:2.78	SP6	RFXF0008
1:1 SMT Transformer	45	1218	0.6	1.3	5.0	1:1	SP5	RFXF0009
1:1 SMT Transformer	45	1218	0.7	1.4	7.0	1:1	SP5	RFXF0007
1:1 SMT Transformer	45	1218	1.1	0.2	3.4	1:1	SP5	RFXF0010
1:1 SMT Transformer	45	1218	1.3	0.4	4.0	1:1	SP5	RFXF0006

## Protector

Description	Min Freq (MHz)	Max Freq (MHz)	Insertion Loss (dB)	Trigger Voltage (V)	CTB (dBc)	CSO (dBc)	Leakage Current (nA)	Capacitance (fF)	Package	Part Number
ESD Protection Circuit	50	1200	0.3	41	-52	-63	I = 15 @ 1V, 500 @ 15V	290 @ 1V, 10 MHz	T/SLP-3	TQP200002

1) All values are typical except where otherwise indicated. 2) Refer to individual product datasheets for test conditions.