Contemporary Research
Modulators - Encoders - Tuners - Control

Q Series RF Distribution
QCA9-33 Active Combiner
QDA4-45 Amplifier Combiner

The Contemporary Research Q series of RF distribution components represents a fresh solution for RF channel combining and amplification. The **QCA9-33** starts by actively combining at low 30 dB levels, with no loss and little noise, then feeding the **QDA4-45** for a final 45-50 dB level with only a small net gain in noise.

QCA9-33 Active Combiner

- Tunes analog and digital channels in ATSC, NTSC, and clear QAM formats
- Combines 8 high-level inputs and one low-level input
- Compensates for combining losses and adds 3 dBmV gain
- Provides a maximum output level of up to 33 dBmV
- Wideband, extremely low noise amplifier
- Low power, draws less than 2 watts
- Compact metal enclosure, mounts 2 across in 1 RU using RK1 and RK2 rack kits

QDA4-45 Amplifier Combiner

- Switches between one input or four input combiner
- Adjusts RF gain from front-panel controls and display
- Adds up to 32 dBmV gain for one input, 25 dB for 4 inputs
- Provides a maximum output level of up to 50 dBmV
- Wideband, low noise amplifier
- Low power, draws less than 8.5 watts
- Compact metal enclosure, mounts 2 across in 1 RU using RK1 and RK2 rack kits

Applications

- Use the QCA9-33 as a 9-channel, 30dB amplifier for small RF applications
- Use the QDA4-45 as a 4-channel, 45 dB amplifier for larger applications
- Feed 4 QCA9-33 units into a QDA4-45 to distribute up to 36 channels
- Integrate the QDA4-45 to merge new digital RF channels with an existing 50-55 dB analog RF systems

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QCA9-33

QDA4-45

	QCA9-33	QDA4-45
Physical	8.5" [216mm] wide x 1.75" [44mm] height (1RU) x 6.0" [153mm] deep 1.1 lbs [500g] Durable metal enclosure, rack mountable Mount separate from QMOD units	8.5" [216mm] wide x 1.75" [44mm] height (1RU) x 6.0" [153mm] deep 1.1 lbs [500g] Durable metal enclosure, rack mountable Mount separate from QMOD units
Front Panel		Input Selection, 1 or 4 inputs, Green LED indicators RF Gain Selection with LED display, 0-25 dB for four inputs, 0-32 dB for one
Back Panel	8 Input F Connectors 1 Low-level Input F connector 1 Amp Out F connector DC Power input Power LED	Inputs: 4 F Connectors Amp Out: 1 F connector DC Power input
Inputs	High-level Inputs - Max input 30 dBmV Low-level Input - Max input 19 dBmV	Max input 40 dBmV
Isolation	38 dB typical, 30 dB minimum, 54 - 860 MHz	38 dB typical, 30 dB minimum, 54 - 860 MHz
Return Loss	30 dB typical	30 dB typical, 13 dB in single input mode
Output	17 dBmV amplifier, extremely low noise, linear performance through 860 MHz Net + 3 db gain after combining	Input 1: 0-32 dBmV gain, low noise, linear performance through 860 MHz All Inputs: 0-25 gain (7 dBmV loss from combiner)
Max Level	Maximum level +33 dBmV	Maximum level +50 dBmV
CTB	-75 dBc, 132 channels at +30 dBmV per channel	-60 dB, 134 channels at +44 dBmV per channel
	Noise Figure 1.8 typical	Noise Figure 4.5 typical
Noise	20 dB typical	17 dB typical
Return loss		
Power	2.1mm coaxial jack (inside center conductor positive), 170 mA maximum, 11.5 to 15 VDC, 12 VDC typical (may be unregulated)	2.1 mm coaxial jack (inside center conductor positive), 700 mA maximum, 11.5 to 12.7 VDC, 12 VDC typical

CR products feature a full two-year warranty.

Made in USA

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