

# Passive Audio/Video Signal Splitters



## Summary:

- Splits a single signal into two outputs.
- Low loss.
- Support for **3G/HD/SD-SDI** and **ASI** digital video formats.
- Supports **AES3i** and **MADI** digital audio formats.
- Passive device.
- Very high performance and fault-tolerant design.
- High isolation between outputs.

## Application:

- Low cost 1 to 2 distribution amplifier. Multiple units to achieve 1 to 4, 1 to 8 etc.
- Signal split for dual-redundant signal processing architectures.
- Simple monitoring split from main signal feed.

### Quantum Leap Design Limited

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# Passive Audio/Video Signal Splitters

## Description:

These signal splitters conveniently split a single source into two signals for distribution with minimal loss. Since it is a passive device there is no requirement for power. These high performance devices are fault tolerant, such that a cable fault, short-circuit, or improper termination on one output has a minimal effect the other.

They provide a convenient method for allowing a single source to be connected to multiple equipment inputs, where a loop-through is not available, or a monitor feed is required. They can also be used where redundant paths are required and since these units do not require any power to operate they provide excellent reliability.

The splitters are available in a compact single channel unit, or multiple channels in a 1RU rack unit. The rack unit is available from 1-channel to up to 14-channels with front only or rear only connectors, and up to 21-channels with front to rear, or rear to front routing.

The splitter range supports all of the SMPTE digital video and AES digital audio transmission rates and so are compatible with 3G-SDI, HD-SDI, SD-SDI and ASI video along with signals conforming to AES3i and MADI digital audio.

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# Passive Audio/Video Signal Splitter

## Specification:

Model		AS275	HS275	3S275	WS275
Mode		1:2			
Impedance	(typ)	75 $\Omega$			
Frequency	(min)	2MHz	15MHz	15MHz	2MHz
	(max)	300MHz	1.5GHz	3GHz	3GHz
Compatibility		AES3i			AES3i
		MADI			MADI
			ASI	ASI	ASI
			SD-SDI	SD-SDI	SD-SDI
			HD-SDI	HD-SDI	HD-SDI
				3G-SDI	3G-SDI
Power	(typ)	1.0W	0.5W	0.5W	0.5W
Return Loss	(max)	-18.3dB	-12.5dB	-8.4dB	-8.4dB
Insertion Loss	(max)	3.43dB	3.7dB	4.41dB	4.41dB
Amplitude Imbalance	(typ)	0.2dB			
	(max)	0.6dB			
Phase Imbalance	(typ)	1.2 degrees			
Output Isolation	(min)	25dB	21dB	27dB	27dB
Channel Isolation	(standalone)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
	(rack mount)	85.4dB	83.1dB	78dB	78dB
Size	(standalone)	mm x 37mm x 21mm (1.57" x 1.46" x 0.83"), excluding connectors			
	(rack mount)	19" x 1RU x 37mm (1.46") max, excluding connectors			

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# Passive Audio/Video Signal Splitter

## Ordering Information:

Part Numbering Scheme: **MM275B-CCFF**

MM = Model : AS, HS, 3S or WS.

CC = Channels : 01 to 21<sup>\*</sup>

FF = Format: SS - **Single Standalone unit.**

FR - **Front inputs, Rear outputs.**

RF - **Rear inputs, Front outputs.**

FF - **Front inputs, Front outputs.**

RR - **Rear inputs, Rear outputs.**

\* SS format is only available in single channel and RR and FF formats have a maximum of 14 channels.

## Example:

WS275 with 17 channels and inputs on front and outputs on rear = WS275B-17FR

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