

Optical Passives (OSP)

OP91S2S, OP92S2S

1x2 and 2x2 Optical Splitters/Combiners

FEATURES

- Low insertion loss
- Wide operating wavelength windows suitable for CWDM applications
- Operating temperature range -40° to $+85^{\circ}\text{C}$
- Telcordia GR-1209 and GR-1221 qualified, providing excellent environmental and mechanical stability
- Variety of options for module package size, fiber jacket, and connector types
- Epoxy-free on optical path



PRODUCT OVERVIEW

ARRIS's OP91S2S and OP92S2S series splitters/combiners have been designed with high uniformity, low insertion loss, and polarization dependent loss. The product family of modules includes 1x2 and 2x2 splitters/combiners with balanced (50/50) outputs, and several varieties of 1x2 splitters/combiners with unbalanced outputs (with split ratios ranging from 55/45 to 99/1). All modules are offered with optional SC/APC type connectors.

The splitters/combiners are available in two versions of packaging for outdoor use, one version ruggedized for easy handling and the second version, though not ruggedized, being smaller and easier to fit in a splice enclosure. Both versions are designed for use in an outdoor environment within a temperature range of -40° to $+85^{\circ}\text{C}$.

SPECIFICATIONS

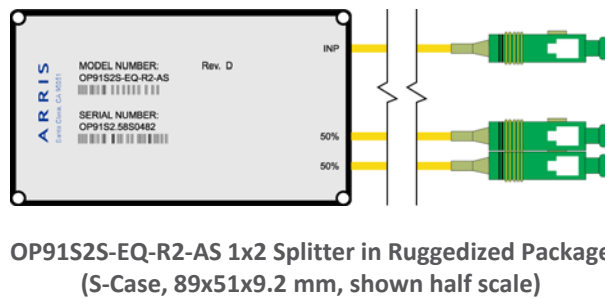
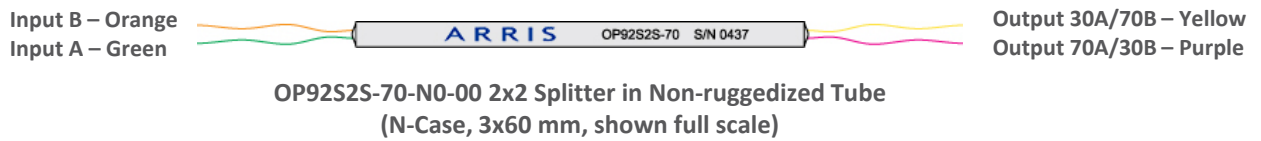
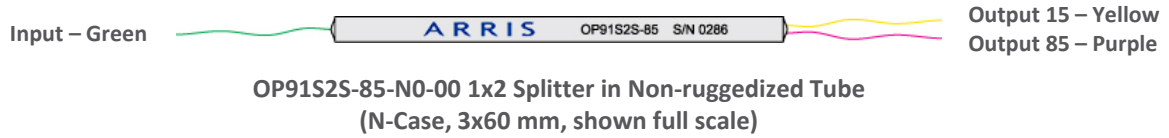
Characteristics	Specification			
Physical				
Dimensions	See Ordering Information			
Weight	0.2 lbs (0.09 kg)			
Environmental				
Operating Temperature Range	-40° to +85°C (-40° to +185°F)			
Storage Temperature Range	-40° to +85°C (-40° to +185°F)			
Humidity	5% to 95% non-condensing			
Optical				
Optical connectors	See Ordering Information			
Operating wavelength	1263.5-1357.5 nm and 1423.5-1655 nm			
Directivity	55 dB			
Return loss, min	55 dB			
Input power handling, max	27 dBm			
Spectral flatness, max (typ.)	0.25 (0.15) dB for the higher-output port and 1530–1560 nm 0.35 (0.25) dB for the higher-output port and 1260–1360 nm 0.45 (0.35) dB for the higher-output port and 1420–1620 nm 0.4 dB for the lower-output port of 50/50, 55/45, 60/40, 65/35, and 70/30 splitters 0.5 dB for the lower-output port of 75/25, 80/20, and 85/15 splitters 0.6 dB for the lower-output port of 90/10, 95/5, and 99/1 splitters			
Polarization dependent loss, max	0.15 dB			
Insertion Losses				
(Without connectors. Losses with connectors are 0.2 dB higher.)				
Part Number ¹	Splitter Type	Split Ratio [%]	Unbalanced Ratio [dB]	Insertion Loss [dB], typical (max)
OP91S2S-EQ-xy-zz	1x2	50/50	0	3.3 (3.6)/3.3 (3.6)
OP91S2S-55-xy-zz	1x2	55/45	1	2.9 (3.1)/3.8 (4.0)
OP91S2S-60-xy-zz	1x2	60/40	2	2.5 (2.9)/4.3 (4.7)
OP91S2S-65-xy-zz	1x2	65/35	3	2.2 (2.6)/4.9 (5.3)
OP91S2S-70-xy-zz	1x2	70/30	4	1.9 (2.3)/5.6 (5.9)
OP91S2S-75-xy-zz	1x2	75/25	5	1.6 (1.9)/6.3 (6.7)
OP91S2S-80-xy-zz	1x2	80/20	6	1.3 (1.7)/7.3 (7.7)
OP91S2S-85-xy-zz	1x2	85/15	8	1.0 (1.2)/8.6 (8.9)
OP91S2S-90-xy-zz	1x2	90/10	10	0.7 (1.0)/10.3 (10.7)
OP91S2S-95-xy-zz	1x2	95/5	13	0.5 (0.7)/13.5 (13.8)
OP91S2S-99-xy-zz	1x2	99/1	20	0.2 (0.4)/19.8 (20.0)
OP92S2S-EQ-xy-zz	2x2	50/50	0	3.3 (3.6)/3.3 (3.6)

NOTE:

1. See Ordering Information for module package (x), fiber jacket (y) and connectorization (zz) options. Insertion losses are the same for all options for each part number shown.

PACKAGE OPTIONS

Four examples are shown. Output split ratio percentages are printed on the labels of ruggedized packages. For non-ruggedized tubes, the input and output fiber optic leads are color-coded as shown in the examples.



ORDERING INFORMATION

Part Number	Description
OP9xS2S-yy-zz-zz	x = Number of inputs per splitter/combiner (1 or 2) yy = Split ratio (Specify split ratio for higher percentage value of two unbalanced outputs 55, 60, ..., 95 or 99). Encode "EQ" for models with balanced outputs. zz-zz = Package, Fiber Jacket, and Connector options (Fiber length for all models is 1 ± 0.15 meters) N0-00 250 μm bare fiber in 3x60 mm Non-ruggedized Tube (N-Case) R2-00 2 mm fiber in 98x14x8.5 mm Ruggedized C-Case R2-AS 2 mm fiber in 89x51x9.2 mm Ruggedized S-Case, with SC/APC Connectors R2-UL 2 mm fiber in 89x51x9.2 mm Ruggedized S-Case, with LC/UPC Connectors R2-AS-UL 2 mm fiber in 89x51x9.2 mm Ruggedized S-Case, with SC/APC and LC/UPC Connectors R2-US-UL 2 mm fiber in 89x51x9.2 mm Ruggedized

RELATED PRODUCTS

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