

# STARLINE Passives

SSP-3Q Splitters

SP-\*Q Directional Couplers

SSP-PIQ, SSP-PIQ/SP Power Inserters

1.2 GHz System RF Passives

## FEATURES

- Support DOCSIS® 3.1 expanded bandwidth up to 1218 MHz
- Support existing install base with backward compatible faceplates
- Superior flexibility in installation with rotatable faceplate and swivel center seizure mechanism
- Easily configured to enable or block AC power as needed in the network
- Protect valuable network equipment investment with optional heavy surge suppression in Power Inserter



## PRODUCT OVERVIEW

ARRIS STARLINE SSP-Q System Passives are available in a variety of configurations including directional couplers, balanced and unbalanced splitters, and power inserters. These AC power-passing, two-way devices operate within an RF passband of 1.2 GHz and are enclosed in die-cast 360 aluminum alloy housings that are equipped for strand and pedestal mounting. The SSP-Q series employs a swivel center conductor seizure mechanism and a rotatable faceplate to ensure that users can configure the units in a variety of input/output and RF/AC combinations. These features provide users flexible installation options and reduce the need for cable loops. The SSP-Q series is also equipped with shorting bars which can be removed for power blocking or replaced with fuses as needed.

## SSP-\*Q Series System Passives 5-1218 MHz

## SPECIFICATIONS INSERTION LOSS

Insertion Loss (dB)	5–150 MHz Typ/Max	151–450 MHz Typ/Max	451–600 MHz Typ/Max	601–750 MHz Typ/Max	751–850 MHz Typ/Max	851–1000 MHz Typ/Max	1001–1218 MHz Typ/Max
SSP-PIQ and SSP-PIQ/SP	0.3/0.6	0.4/0.6	0.4/0.7	0.4/0.8	0.4/0.9	0.5/1.1	0.9/1.6
SSP-3Q	3.8/4.4	3.8/4.4	3.9/4.6	4.1/5.0	4.3/5.2	4.5/5.5	5.0/6.3
SSP-7Q	Output	1.9/2.7	2.1/2.7	2.1/3.0	2.4/3.3	2.6/3.6	3.4/4.2
	Tap Loss	7.7/8.0	7.6/8.0	7.5/8.2	7.5/8.5	7.6/8.7	8.5/9.7
SSP-9Q	Output	1.4/1.8	1.6/2.0	1.6/2.3	1.8/2.7	2.1/3.0	2.9/3.6
	Tap Loss	9.3/9.9	9.2/9.7	9.1/9.9	9.1/10.1	9.1/10.3	10.0/11.2
SSP-12Q	Output	1.1/1.5	1.3/1.7	1.4/2.0	1.5/2.2	1.6/2.4	2.2/3.0
	Tap Loss	11.7/12.8	11.4/12.5	11.4/12.5	11.5/12.8	11.6/13.2	11.9/13.6
SSP-16Q	Output	0.9/1.3	1.0/1.5	1.0/1.7	1.1/1.9	1.3/2.2	1.9/2.8
	Tap Loss	15.7/16.8	15.4/16.5	15.3/16.5	15.4/16.7	15.5/16.9	15.9/17.3
SSP-3-636Q	J1-J2	7.2/7.9	7.5/8.2	7.5/8.5	7.6/9.0	7.7/9.6	8.8/11.0
	J1-J3	7.2/7.9	7.5/8.2	7.5/8.5	7.6/9.0	7.7/9.6	8.8/11.0
	J1-J4	3.9/4.6	4.0/4.5	4.1/4.7	4.2/4.9	4.2/5.3	4.9/6.3

## SPECIFICATIONS ISOLATION (dB Minimum)

Isolation (dB)	5–10 MHz	11–600 MHz	601–750 MHz	751–850 MHz	851–1000 MHz	1001–1218 MHz
SSP-PIQ and SSP-PIQ/SP	60	70	65	60	60	57
SSP-3Q	15	20	20	20	20	20
SSP-7Q	15	20	20	20	20	20
SSP-9Q	15	20	20	20	20	20
SSP-12Q	15	20	20	20	20	20
SSP-16Q	15	24	24	22	20	20
SSP-3-636Q	15	20	20	20	20	20

## SPECIFICATIONS RETURN LOSS (dB Minimum)

Return Loss (dB)	5-50 MHz	51-150 MHz	151-450 MHz	451-750 MHz	751-850 MHz	851-1000 MHz	1001–1218 MHz
SSP-PIQ	15	18	18	18	16	16	16
SSP-PIQ/SP	15	18	18	18	16	16	16
SSP-3Q	15	17	17	17	16	16	16
SSP-7Q	15	16	16	18	16	16	16
SSP-9Q	15	16	16	18	16	16	16
SSP-12Q	15	16	17	18	16	16	16
SSP-16Q	15	17	18	18	16	16	16
SSP-3-636Q	15	17	17	17	16	16	16

## GENERAL SPECIFICATIONS

Characteristics	Specifications
Current Handling (Splitters and Directional Couplers)	15 amperes maximum all ports
Current Handling (Power Inserter)	
AC Ports	20 amperes maximum
RF Ports	15 amperes maximum
SSP-PIQ/SP Surge Protection	
Surge Current Rating	3000 A, 8x20 $\mu$ S
Minimum Firing Voltage	180 V
Hum Modulation	5–10 MHz: 60 dB minimum, all models except PI and PI/SP
	5–10 MHz: 50 dB minimum, PI and PI/SP
	11–750 MHz: 60 dB minimum
	751–1000 MHz: 53 dB minimum
	1001–1218 MHz: 50 dB minimum
RFI	100 dB minimum
Flatness	$\pm$ 0.4 dB maximum on thru port (versus cable) except SSP-3Q and SSP-3-636Q
	$\pm$ 0.5 dB maximum SSP-3Q and SSP-3-636Q thru ports (versus cable)
	$\pm$ 0.8 dB maximum on COUPLED port (versus cable)
Dimensions	5.53 x 5.53 x 2.50 inches (14.0 x 14.0 x 6.35 cm)
Weight	1.67 lbs. (0.76 kg)

## RELATED PRODUCTS

FFT Full Feature Taps	Optical Patch Cords
FFE Feederline Equalizers	Optical Passives
CHP Chassis	Installation Services

SSP-Q series configuration options are described in the table below. Ordering information is provided in the table that follows.

### SSP-Q CONFIGURATION OPTIONS

Model Name	Description	Port Configurations
SSP-3Q	This is a symmetrical splitter that divides the RF signal into two branches of equal amplitude.	Input (RF/AC) Output (RF/AC) Output (RF/AC)
SSP-*Q	These directional couplers are available with tap losses of 7 dB, 9 dB, 12 dB, or 16 dB and are used when signal amplitudes of unequal outputs are preferred.	Input (RF/AC) Output (RF/AC) Tap Output (RF/AC)
SSP-3-636Q	This is the only splitter that provides three outputs: one output is attenuated by 3 dB, while the other two are attenuated by 6 dB each.	Input (RF/AC) Output (RF/AC) Output (RF/AC) Output (RF/AC)
SSP-PIQ	This power inserter is used to add 60 Vac to 90 Vac to the cable system. It can accommodate 15 A continuous on each leg and 20 amps in common.	Input/output (RF/AC) Input/output (RF/AC) Output (AC) Output (AC)
SSP-PIQ/SP	This power inserter adds an additional 3000 amps of current surge protection to the entire system.	Input/output (RF/AC) Input/output (RF/AC) Output (AC) Output (AC)

### SSP-Q ORDERING INFORMATION

Complete Passive Part Number	Model Name	Faceplate Only Part Number	Model Name
594947-001-00	SSP-PIQ	596229-001-00	SSP-PIQ/U
594947-002-00	SSP-3Q	596229-002-00	SSP-3Q/U
594947-003-00	SSP-7Q	596229-003-00	SSP-7Q/U
594947-004-00	SSP-9Q	596229-004-00	SSP-9Q/U
594947-005-00	SSP-12Q	596229-005-00	SSP-12Q/U
594947-006-00	SSP-16Q	596229-006-00	SSP-16Q/U
594947-007-00	SSP-3-636Q	596229-007-00	SSP-3-636Q/U
594947-008-00	SSP-PIQ/SP	596229-008-00	SSP-PIQ/SP/U

## Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

**Note:** Specifications are subject to change without notice.

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