

FFT*-*Q Series

FFT2-*Q – 2 Port Taps

FFT4-*Q – 4 Port Taps

FFT8-*Q – 8 Port Taps

1.2 GHz Full-Feature Equalizable Taps

FEATURES

- Support DOCSIS® 3.1 expanded bandwidth up to 1218 MHz
- Improve network performance with signal conditioning plug-ins
- High quality RF connection with auto-seize F-connectors
- Maintain existing install base with compatibility back to “F” series FFT housings
- High level of network resilience with 6 kV surge resistance on feederline and F-ports
- Maintain RF and AC connections with faceplate removed with integrated bypass capability



PRODUCT OVERVIEW

The ARRIS FFT-Q 1.2 GHz series equalizable taps offer improved return path performance for advanced two-way HFC systems while maintaining backward compatibility with previous FFT install base. FFT taps allow for signal conditioning with optional plug-in, field configurable modules that include cable equalizers, return path attenuators, and cable simulators. These plug-ins allow for drop signal conditioning without affecting the main feederline path.

All FFT taps come equipped with an auto-seize F-connector which improves system reliability by providing increased clamping force and a greater surface/contact area over standard F-connectors.

For applications that require plant power on the F-port the FFT faceplate can be replaced with the BTTF F-port power extracting faceplate.

SPECIFICATIONS MAXIMUM PERFORMANCE WITH JUMPER (T-JP) INSTALLED* (5-1218 MHZ)

Insertion Loss (dB)	Nom. Tap Value	5 MHz	10 MHz	50 MHz	100 MHz	450 MHz	550 MHz	750 MHz	870 MHz	1000 MHz	1218 MHz
FFT2-4TQ	4.0	—	—	—	—	—	—	—	—	—	—
FFT2-7Q	7.0	3.9	3.6	3.5	3.6	4.2	4.2	4.2	4.3	4.3	5.2
FFT2-10Q	10.0	2.0	1.8	1.8	2.0	2.4	2.4	2.4	2.7	3.0	3.6
FFT2-12Q	12.0	1.8	1.6	1.6	1.8	2.1	2.3	2.4	2.7	3.0	3.6
FFT2-14Q	14.0	1.3	1.2	1.2	1.3	1.6	1.8	1.8	2.0	2.3	2.7
FFT2-17Q	17.0	1.2	1.1	1.1	1.2	1.5	1.5	1.6	1.6	1.6	2.2
FFT2-20Q	20.0	1.0	0.9	0.9	1.0	1.3	1.4	1.5	1.6	1.6	2.0
FFT2-23Q	23.0	0.7	0.6	0.7	0.8	1.1	1.2	1.3	1.4	1.6	2.0
FFT2-26Q	26.0	0.7	0.6	0.7	0.8	1.1	1.2	1.3	1.4	1.6	2.0
FFT2-29Q	29.0	0.7	0.6	0.7	0.8	1.1	1.2	1.3	1.4	1.6	2.0
FFT4-7TQ	7.5	—	—	—	—	—	—	—	—	—	—
FFT4-10Q	10.8	3.9	3.6	3.5	3.6	4.2	4.4	4.4	4.4	4.5	5.2
FFT4-14Q	14.0	2.0	1.8	1.8	2.0	2.4	2.6	2.8	3.0	3.1	3.6
FFT4-15.5Q	15.5	1.6	1.4	1.4	1.6	1.9	2.0	2.3	2.6	3.0	3.4
FFT4-17Q	17.0	1.3	1.2	1.2	1.3	1.7	1.9	1.9	2.1	2.4	2.7
FFT4-20Q	20.0	1.2	1.1	1.1	1.2	1.5	1.5	1.6	1.8	2.0	2.2
FFT4-23Q	23.0	1.0	0.9	0.9	1.0	1.3	1.4	1.5	1.6	1.7	2.0
FFT4-26Q	26.0	0.7	0.6	0.6	0.8	1.1	1.2	1.3	1.4	1.5	1.8
FFT4-29Q	29.0	0.7	0.6	0.6	0.8	1.1	1.2	1.3	1.4	1.5	1.8
FFT8-10TQ	10.0	—	—	—	—	—	—	—	—	—	—
FFT8-14Q	14.5	3.9	3.6	3.5	3.6	4.2	4.4	4.5	4.5	4.5	5.2
FFT8-17Q	17.5	2.0	1.8	1.8	2.0	2.4	2.6	2.8	2.9	3.1	3.6
FFT8-20Q	20.0	1.3	1.2	1.2	1.3	1.7	1.9	1.9	2.1	2.3	2.8
FFT8-23Q	23.5	1.1	0.9	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.2
FFT8-26Q	26.0	0.8	0.7	0.7	0.8	1.2	1.4	1.4	1.4	1.6	2.0
FFT8-29Q	29.5	0.8	0.7	0.7	0.8	1.2	1.2	1.4	1.4	1.6	2.0

The FFT*-*Q is shipped standard with a jumper (T-JP) installed into the plug-in module sockets.

SPECIFICATIONS TAP TO OUTPUT ISOLATION, NOMINAL

MODEL NO. FFT2-*Q	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
FFT2-4TQ	—	—	—	—	—	—
FFT2-7Q	20	25	21	22	20	20
FFT2-10Q	20	25	22	22	20	20
FFT2-12Q	22	25	23	23	22	20
FFT2-14Q	22	26	26	26	23	22
FFT2-17Q	26	30	30	30	28	25
FFT2-20Q	29	33	33	31	30	29
FFT2-23Q	32	36	36	34	33	31
FFT2-26Q	35	38	38	36	35	33
FFT2-29Q	38	40	40	39	37	35

MODEL NO. FFT4-*Q	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
FFT4-7TQ	—	—	—	—	—	—
FFT4-10Q	20	25	23	23	22	21
FFT4-14Q	22	27	27	27	25	24
FFT4-15.5Q	24	28	28	28	26	25
FFT4-17Q	26	28	28	28	26	25
FFT4-20Q	30	34	34	34	32	29
FFT4-23Q	32	36	36	36	34	31
FFT4-26Q	34	38	38	38	36	33
FFT4-29Q	36	40	40	40	38	35

MODEL NO. FFT8-*Q	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
FFT8-10TQ	—	—	—	—	—	—
FFT8-14Q	23	25	25	25	25	22
FFT8-17Q	25	30	30	30	27	25
FFT8-20Q	28	32	32	31	28	27
FFT8-23Q	30	34	34	34	32	28
FFT8-26Q	34	36	36	36	34	29
FFT8-29Q	36	38	38	37	35	31

SPECIFICATIONS

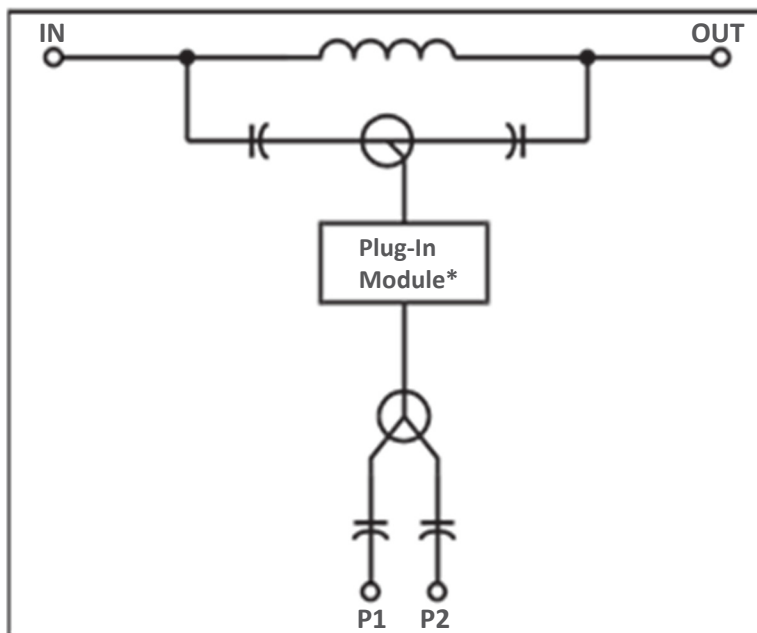
Tap Value:	2-way	5 – 1000 MHz	± 2.0 dB	
		1000 – 1218 MHz	± 2.5 dB	
	4-way	5 – 1000 MHz	± 2.0 dB	
		1000 – 1218 MHz	± 2.5 dB	
	8-way	5 – 1000 MHz	± 3.0 dB	
		1000 – 1218 MHz	± 3.5 dB	
Tap to Tap Isolation:		5 – 9 MHz	20 dB	
		10 – 85 MHz	25 dB	
		86 – 300 MHz	27 dB	
		301 – 749 MHz	23 dB	
		750 – 1218 MHz	20 dB	
Return Loss: Tap Ports		5 – 9 MHz	16 dB	
		10 – 749 MHz	17 dB	
		750 – 1000 MHz	17 dB	
		1001 – 1218 MHz	16 dB	
Return Loss: In/Out Ports	2-way Taps	5 – 9 MHz	16 dB	
		10 – 749 MHz	17 dB	
		4- & 8-way Taps	10 – 749 MHz	16 dB
		750 – 1218 MHz	16 dB	

SPECIFICATIONS

Power Passing	12 Amperes Maximum (60/90 volts)
Surge: In/Out and F-Port	6 kV Combination Wave
Hum Modulation (10 Amperes)	
5 – 10 MHz:	60 dB Minimum
11 – 750 MHz:	65 dB Minimum
751 – 1000 MHz:	60* dB Minimum
1001 – 1218 MHz:	55* dB Minimum
High Frequency Transients	Hum modulation - 73 dB for input voltage slew rates below 0.3 V/μS.
RFI	100 dB minimum
Operating Temperature	-40°C to +60°C
Dimensions	4.0 x 2.9 x 5.6 inches (10.2 x 7.4 x 14.2 cm)
Weight	1.0 lb. (0.45 kg)

* Hum performance can degrade 2-3 dB at 60°C.

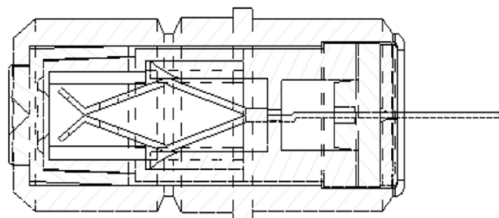
FFT*-*Q Tap Block Diagram



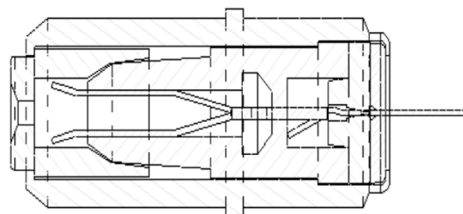
**Plug-In Module may be T-JP, T-EQ-*Q, T-RPA/*Q, or T-CS-*Q. Block Diagram shown is for a 2-port tap. The 4-port and 8-port taps will have additional splitters after the plug-in module.*

FFT*-*Q Auto-Seize Connector

Conventional F-Connector Design



Auto-Seize Q-Series F-Connector Design



TAP COLOR CODES

dB Value	Background	Lettering
4	Purple	White
7	Green	Black
10	Red	Black
12	Red	Black
14	Yellow	Black
15.5	Yellow	Black
17	White	Black
20	Black	White
23	Orange	White
26	Lt. Orange	Black
29	Lt. Orange	White

RELATED PRODUCTS

SSP-*Q 1.2 GHz Line Passives

T-*Q 1.2 GHz FFT Plug-ins

Note: Specifications are subject to change without notice.

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