

# BTTF\*-\*Q Taps

BTTF2-\*Q (2 Port), BTTF4-\*Q (4 Port), BTTF8-\*Q (8 Port)  
F-Port Power Extracting Taps

## FEATURES

- Support expanded bandwidth up to 1218 MHz
- Enable Cable Wi-Fi® Access Point powering via the F-port
- 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
- Maintain RF and AC continuity with integrated bypass capability

CommScope 1.2 GHz power extracting taps can deliver video, telephony, and data over the broadband hybrid fiber coax system. These taps have all the same features and performance as our standard Q-series FFT taps, including 12 ampere power passing and surge resiliency, but with the additional feature of power extracting for Cable Wi-Fi applications.

The BTTF\*-\*Q taps extract power from the cable feeder and deliver it to the Cable Wi-Fi Access Point via the F-Port (Port 1, jumper selectable). RF signals are also distributed through the F-ports to the coaxial drop.



## BTTF2-\*Q INSERTION LOSS SPECIFICATIONS<sup>1</sup> (5–1218 MHz)

Insertion Loss (dB)	Nom. Tap Value	5 MHz Typ/Max	10 MHz Typ/Max	50 MHz Typ/Max	100 MHz Typ/Max	450 MHz Typ/Max	550 MHz Typ/Max	750 MHz Typ/Max	870 MHz Typ/Max	1000 MHz Typ/Max	1218 MHz Typ/Max
BTTF2-4TQ	4.0	—	—	—	—	—	—	—	—	—	—
BTTF2-7Q	7.0	3.6/4.1	3.4/3.8	3.2/3.7	3.4/3.8	4.0/4.3	4.1/4.4	4.1/4.5	4.1/4.5	3.9/4.5	4.7/5.5
BTTF2-10Q	10.0	1.65/2.2	1.8/1.9	1.9/1.9	2.1/2.2	2.4/2.5	2.5/2.6	2.6/2.7	2.8/3.0	3.1/3.2	3.6/3.8
BTTF2-12Q	12.0	1.2/1.9	1.0/1.8	1.0/1.8	1.2/2.1	1.5/2.2	1.6/2.5	1.8/2.6	2.0/2.9	2.3/3.2	2.8/3.8
BTTF2-14Q	14.0	0.9/1.5	0.8/1.4	0.8/1.4	1.0/1.5	1.3/1.8	1.4/2.0	1.6/2.1	1.7/2.3	1.9/2.5	2.2/2.9
BTTF2-17Q	17.0	0.7/1.4	0.6/1.3	0.6/1.3	0.7/1.5	1.1/1.7	1.2/1.7	1.4/1.8	1.5/1.8	1.6/1.8	1.7/2.4
BTTF2-20Q	20.0	0.5/1.2	0.5/1.1	0.5/1.1	0.6/1.3	1.0/1.5	1.1/1.6	1.2/1.7	1.3/1.8	1.5/1.8	1.8/2.2
BTTF2-23Q	23.0	0.4/0.9	0.4/0.8	0.4/0.9	0.6/1.0	0.8/1.2	0.9/1.4	1.1/1.5	1.3/1.5	1.4/1.8	1.8/2.2
BTTF2-26Q	26.0	0.4/0.8	0.3/0.8	0.3/0.9	0.3/0.9	0.6/1.4	0.7/1.5	0.8/1.6	0.9/1.6	1.0/1.8	1.3/2.2
BTTF2-29Q	29.0	0.4/0.8	0.4/0.8	0.3/0.9	0.3/0.9	0.6/1.4	0.7/1.5	0.8/1.6	0.9/1.6	1.0/1.8	1.4/2.2

**NOTE:**

1. The BTTF2-\*Q is shipped standard with a jumper (T-JP) installed into the plug-in module sockets.

## BTTF4-\*Q INSERTION LOSS SPECIFICATIONS<sup>1</sup> (5–1218 MHz)

Insertion Loss (dB)	Nom. Tap Value	5 MHz Typ/Max	10 MHz Typ/Max	50 MHz Typ/Max	100 MHz Typ/Max	450 MHz Typ/Max	550 MHz Typ/Max	750 MHz Typ/Max	870 MHz Typ/Max	1000 MHz Typ/Max	1218 MHz Typ/Max
BTTF4-7TQ	7.2	—	—	—	—	—	—	—	—	—	—
BTTF4-10Q	10.0	3.8/4.0	3.5/3.8	3.4/3.7	3.3/3.8	4.1/4.5	4.1/4.7	4.1/4.7	4.1/4.7	4.0/4.7	4.3/5.4
BTTF4-14Q	14.0	1.7/2.2	1.5/2.0	1.3/1.9	1.4/2.2	1.9/2.5	2.2/2.7	2.5/2.9	2.6/3.1	2.8/3.2	3.0/3.8
BTTF4-15.5Q	15.5	1.3/1.8	1.1/1.6	1.1/1.6	1.1/1.8	1.7/2.0	2.0/2.2	2.3/2.5	2.5/2.8	2.7/3.2	3.0/3.6
BTTF4-17Q	17.0	0.9/1.5	0.8/1.4	0.8/1.4	0.8/1.7	1.3/1.8	1.5/2.0	1.7/2.0	1.8/2.3	2.0/2.6	2.3/2.9
BTTF4-20Q	20.5	0.7/1.4	0.6/1.3	0.6/1.2	0.7/1.4	1.1/1.6	1.3/1.6	1.4/1.8	1.6/2.0	1.7/2.2	1.9/2.4
BTTF4-23Q	23.0	0.5/1.2	0.4/1.0	0.4/1.0	0.5/1.1	0.9/1.4	1.0/1.5	1.2/1.6	1.3/1.8	1.5/1.9	1.9/2.2
BTTF4-26Q	26.0	0.4/0.9	0.4/0.7	0.4/0.7	0.5/0.9	0.8/1.0	0.9/1.2	1.1/1.4	1.2/1.9	1.5/2.0	2.0/2.2
BTTF4-29Q	29.0	0.4/0.9	0.3/0.7	0.3/0.7	0.4/0.9	0.7/1.0	0.8/1.2	1.0/1.4	1.2/1.9	1.4/2.0	1.9/2.2

**NOTE:**

1. The BTTF4-\*Q is shipped standard with a jumper (T-JP) installed into the plug-in module sockets.

## BTTF8-\*Q INSERTION LOSS SPECIFICATIONS<sup>1</sup> (5–1218 MHz)

Insertion Loss (dB)	Nom. Tap Value	5 MHz Typ/Max	10 MHz Typ/Max	50 MHz Typ/Max	100 MHz Typ/Max	450 MHz Typ/Max	550 MHz Typ/Max	750 MHz Typ/Max	870 MHz Typ/Max	1000 MHz Typ/Max	1218 MHz Typ/Max
BTTF8-10TQ	10.0	—	—	—	—	—	—	—	—	—	—
BTTF8-14Q	14.2	3.8/4.0	3.4/3.8	3.3/3.7	3.4/3.9	4.2/4.5	4.4/4.7	*/4.7	4.3/4.7	4.4/4.7	4.7/5.4
BTTF8-17Q	17.8	1.6/2.2	1.3/2.0	1.4/2.0	1.5/2.1	2.0/2.6	2.0/2.7	*/3.0	2.5/3.1	2.6/3.3	3.0/3.8
BTTF8-20Q	20.0	1.2/1.5	1.0/1.4	1.0/1.4	1.0/1.4	1.5/1.9	1.5/2.1	*/2.1	2.0/2.3	2.2/2.5	2.3/3.0
BTTF8-23Q	23.5	0.7/1.3	0.6/1.1	0.6/1.1	0.7/1.4	1.0/1.5	1.1/1.7	*/1.8	1.4/2.0	1.6/2.2	2.0/2.4
BTTF8-26Q	26.1	0.4/1.0	0.4/0.9	0.4/0.9	0.5/1.0	0.8/1.3	0.9/1.5	*/1.6	1.2/1.7	1.4/1.8	1.7/2.2
BTTF8-29Q	29.2	0.4/1.0	0.3/0.9	0.3/0.9	0.4/1.0	0.8/1.3	0.9/1.5	*/1.6	1.2/1.7	1.4/1.8	1.8/2.2

**NOTE:**

1. The BTTF8-\*Q is shipped standard with a jumper (T-JP) installed into the plug-in module sockets.

### BTTF2-\*Q TAP TO OUTPUT ISOLATION SPECIFICATIONS, dB (NOMINAL, 5–1218 MHz)

	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
BTTF2-4TQ	—	—	—	—	—	—
BTTF2-7Q	20	25	21	20	20	20
BTTF2-10Q	20	25	22	21	20	20
BTTF2-12Q	22	25	23	22	22	20
BTTF2-14Q	22	26	26	25	22	22
BTTF2-17Q	26	28	30	28	26	25
BTTF2-20Q	26	33	33	31	30	28
BTTF2-23Q	26	35	35	33	32	28
BTTF2-26Q	26	35	35	35	34	28
BTTF2-29Q	26	35	35	35	35	28

### BTTF4-\*Q TAP TO OUTPUT ISOLATION SPECIFICATIONS, dB (NOMINAL, 5–1218 MHz)

	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
BTTF4-7TQ	—	—	—	—	—	—
BTTF4-10Q	19	25	23	23	22	20
BTTF4-14Q	22	27	27	27	24	24
BTTF4-15.5Q	24	28	28	27	25	24
BTTF4-17Q	26	28	28	27	25	24
BTTF4-20Q	30	34	34	34	30	27
BTTF4-23Q	32	35	35	35	32	27
BTTF4-26Q	34	36	35	35	34	27
BTTF4-29Q	35	36	35	35	35	28

### BTTF8-\*Q TAP TO OUTPUT ISOLATION SPECIFICATIONS, dB (NOMINAL, 5–1218 MHz)

	5-9 MHz	10-85 MHz	86-300 MHz	301-749 MHz	750-899 MHz	900-1218 MHz
BTTF8-10TQ	—	—	—	—	—	—
BTTF8-14Q	20	25	25	25	24	24
BTTF8-17Q	25	30	30	28	26	24
BTTF8-20Q	30	34	34	31	28	26
BTTF8-23Q	32	35	35	34	31	27
BTTF8-26Q	34	35	35	35	33	28
BTTF8-29Q	35	35	35	35	34	28

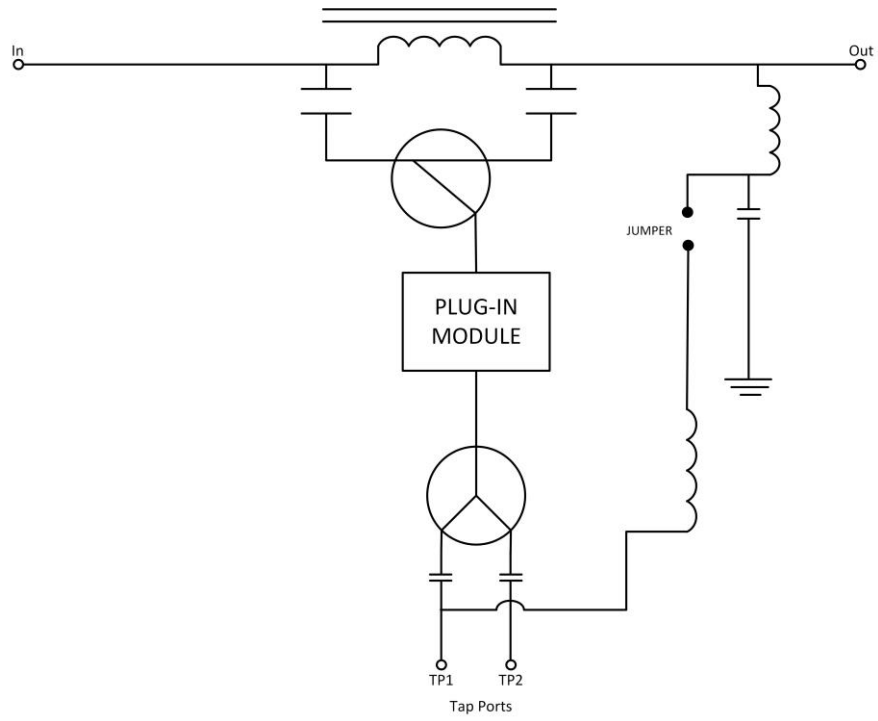
## SPECIFICATIONS

Characteristics	Specification
<b>Physical</b>	
Dimensions	5.5 in L x 4.5 in H x 3.5 in D (13.97 cm x 11.43 cm x 8.89 cm)
Weight	1.5 lb (0.69 kg)
Mechanical	SCTE IPS-SP-400 – F-port Interface/SCTE IPS-SP-420 – Entry Port Interface
<b>Environmental</b>	
Operating Temperature Range	-40° to +60°C (-40° to +140°F)
Emission	47 CFR Part 15 FCC Radio Frequency Devices October 1, 2011, CISPR 22 Ed. 6.0 b:2008, EN 61000-3-2:2006 +A1/A2:2009 Electromagnetic Compatibility (EMC) Part 3-2, EN 61000-3-3:2013- Electromagnetic Compatibility (EMC) – Part 3-3, ICES Issue 6 - Information Technology Equipment (ITE), EN55022:2010/AC:2011
Safety	IEC 60950-22, Edition 2.0 2016-01
<b>General</b>	
Tap Value Tolerance <sup>1</sup>	
2-way Taps <sup>2</sup>	+2.0 dB, 5–1000 MHz +2.5 dB, 1000–1218 MHz
4-way Taps <sup>3</sup>	+2.0 dB, 5–1000 MHz +2.5 dB, 1000–1218 MHz
8-way Taps	+3.5 dB, 5–1000 MHz +3.8 dB, 1000–1218 MHz
Tap to Tap Isolation	
5–9 MHz	20 dB
10–85 MHz	25 dB
86–300 MHz	24 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 <sup>4</sup>	
5–9 MHz	16 dB
10–749 MHz (2-way Taps)	17 dB
10–749 MHz (4-way and 8-way Taps)	16 dB
750–1218 MHz	16 dB
<b>Powering</b>	
Power Passing	12 A (max) (60/90 volts)
Port Power Extracting (Tap Port 1)	2 A (max)
Surge: In/Out and F-Port	6 kV Combination Wave
Hum Modulation (10 A)	
5–10 MHz	60 dB (min)
11–550 MHz	65 dB (min)
551–1000 MHz <sup>5</sup>	60 dB (min)
1001–1218 MHz <sup>5</sup>	55 dB (min)
RFI	100 dB (min)

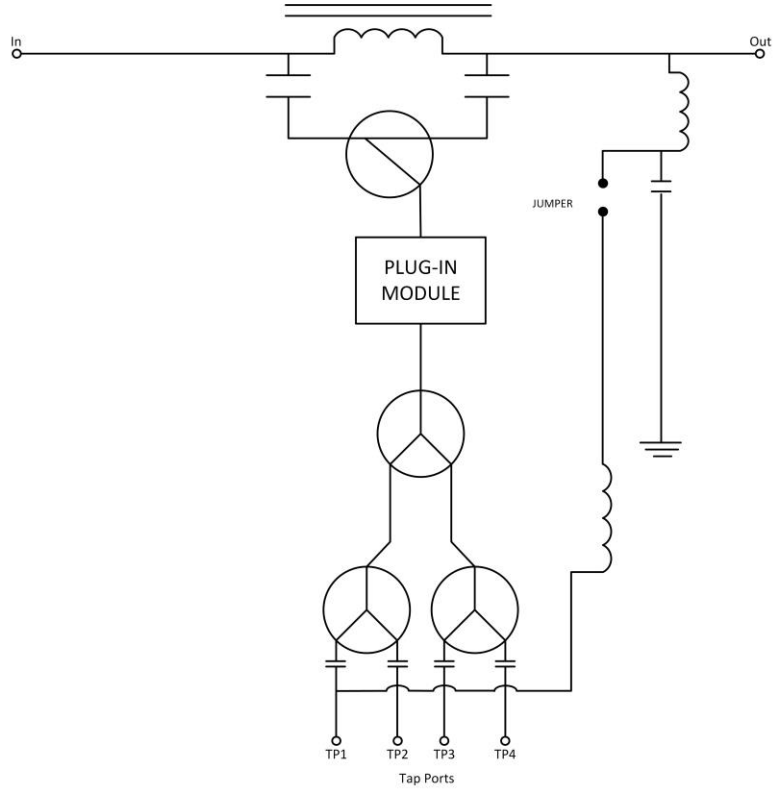
### NOTES:

1. Tap Port 1 may degrade an additional 1 dB RL at -40°C at 5 MHz.
2. Tap Value Tolerance for BTTF2-7Q and BTTF2-10Q 2-way tap models is ±2.5 dB to ±3.0 dB at 1000–1218 MHz.
3. Tap Value Tolerance for BTTF4-7Q and BTTF4-10Q 4-way tap models is ±2.5 dB to ±3.0 dB at 1000–1218 MHz.
4. 2 and 4 Port taps have an additional 0.25 dB loss on tap port 1; 8 port taps an additional 0.5 dB loss on tap port 1.
5. Hum performance can degrade 2–3 dB at 60°C.

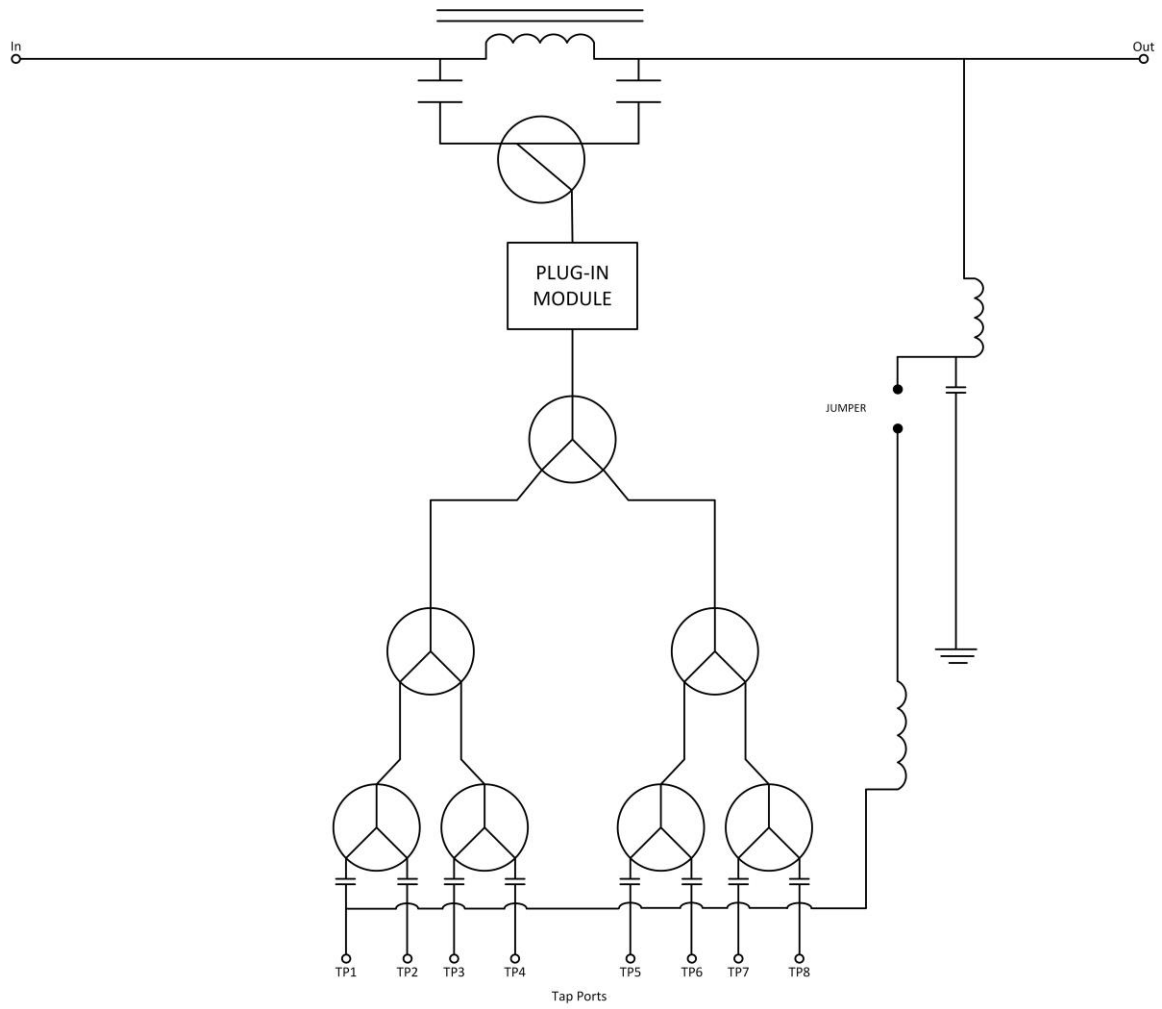
### BTTF2-\*Q Block Diagram



### BTTF4-\*Q Block Diagram

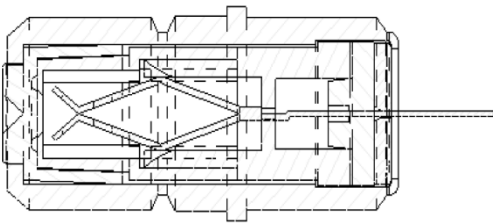


## BTTF8-\*Q Block Diagram

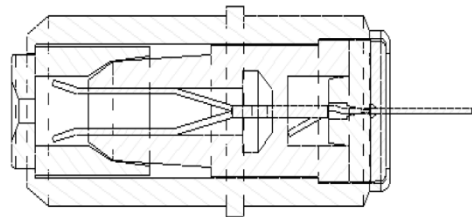


## BTTF\*-\*Q Auto-Seize Connector

F-Connector Conventional F-Connector Design



Auto-Seize Q-Series F-Connector Design



## RELATED PRODUCTS

SSP-Q Series System Passives	RF Amplifiers
FFT-Q Series System Taps	Optical Nodes
T-*Q 1.2 GHz Tap Plug-ins	Headend Optics

## 2-WAY TAP ORDERING INFORMATION

Complete Tap Part Number	Model Name	Faceplate Only Part Number	Model Name
1510490-001	BTTF2-4TQ	1510491-001	BTTF2-4TQ/U
1510490-002	BTTF2-7Q	1510491-002	BTTF2-7Q/U
1510490-003	BTTF2-10Q	1510491-003	BTTF2-10Q/U
1510490-004	BTTF2-12Q	1510491-004	BTTF2-12Q/U
1510490-005	BTTF2-14Q	1510491-005	BTTF2-14Q/U
1510490-006	BTTF2-17Q	1510491-006	BTTF2-17Q/U
1510490-007	BTTF2-20Q	1510491-007	BTTF2-20Q/U
1510490-008	BTTF2-23Q	1510491-008	BTTF2-23Q/U
1510490-009	BTTF2-26Q	1510491-009	BTTF2-26Q/U
1510490-010	BTTF2-29Q	1510491-010	BTTF2-29Q/U
594945-012-00	FFT*-PBA-V (Blank Plate)	N/A	N/A

## 4-WAY TAP ORDERING INFORMATION

Complete Tap Part Number	Model Name	Faceplate Only Part Number	Model Name
1510492-001	BTTF4-7TQ	1510493-001	BTTF4-7TQ/U
1510492-002	BTTF4-10Q	1510493-002	BTTF4-10Q/U
1510492-003	BTTF4-14Q	1510493-003	BTTF4-14Q/U
1510492-004	BTTF4-15.5Q	1510493-004	BTTF4-15.5Q/U
1510492-005	BTTF4-17Q	1510493-005	BTTF4-17Q/U
1510492-006	BTTF4-20Q	1510493-006	BTTF4-20Q/U
1510492-007	BTTF4-23Q	1510493-007	BTTF4-23Q/U
1510492-008	BTTF4-26Q	1510493-008	BTTF4-26Q/U
1510492-009	BTTF4-29Q	1510493-009	BTTF4-29Q/U
594945-012-00	FFT*-PBA-V (Blank Plate)	N/A	N/A

## 8-WAY TAP ORDERING INFORMATION

Complete Tap Part Number	Model Name	Faceplate Only Part Number	Model Name
1510494-001	BTTF8-10TQ	1510495-001	BTTF8-10TQ/U
1510494-002	BTTF8-14Q	1510495-002	BTTF8-14Q/U
1510494-003	BTTF8-17Q	1510495-003	BTTF8-17Q/U
1510494-004	BTTF8-20Q	1510495-004	BTTF8-20Q/U
1510494-005	BTTF8-23Q	1510495-005	BTTF8-23Q/U
1510494-006	BTTF8-26Q	1510495-006	BTTF8-26Q/U
1510494-007	BTTF8-29Q	1510495-007	BTTF8-29Q/U
594945-012-00	FFT*-PBA-V (Blank Plate)	N/A	N/A

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.

**Copyright Statement:** © 2023 CommScope, Inc. All rights reserved. ARRIS and the ARRIS logo are trademarks of CommScope, Inc. and/or its affiliates. All other trademarks are the property of their respective owners. No part of this content may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from CommScope, Inc. and/or its affiliates ("CommScope"). CommScope reserves the right to revise or change this content from time to time without obligation on the part of CommScope to provide notification of such revision or change.

1514661\_BTTF-Q\_DS\_RevB