

CLICK & GO 5 - 3000 MHz

CLICK IN MODULES | prepare for the future



COAX NETWORKS



FTTH NETWORKS

DATASHEET

INTRODUCTION

DOCSIS® enables very high data rates on our existing coax cable networks, but what about your wall outlets? Are they ready for extended frequency ranges and splits in up- and downstream?

A customer visit is expensive and in many cases not easy to schedule. So when a field technician is on the customer premises for installation and/or upgrade activities, he needs to ensure, that what he or she installs or replaces is future-proof and prepared for DOCSIS® 3.1 and beyond.

By using Click & Go as a migration path from high bandwidth coax towards an FTTH network, the cable operator introduces cost efficiency and flexibility into his network.



Most of the click and go modules have a high screening according Class A +15 dB.

PRODUCTS

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IEC-TYPE UND F-TYPE**
 “btv-RFM-x serie”

- 4 **45° ANGLED RF CLICK-IN MODULE
5 – 3000 MHz DOUBLE GALVANIC ISOLATED, F-TYPE**
 “btv-RFM-4-x-x series”

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WITH SUITABLE, 45° ANGLED ADAPTER**
 “btv-KSM-1 adapter”

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FOR RF CLICK-IN MODULES**
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 “btv-TCP-X Serie”

90° RF MODULES 5 – 3000 MHz

IEC-TYPE UND F-TYPE

PRODUCT OVERVIEW

“btv-RFM-x series”

Parameter		Frequency [MHz]	btv-RFM-2-F	btv-RFM-1-IEC	btv-RFM-Mini-IEC
Coax cable to be used	Cable center pin accept range		0.4 – 1.2	0.4 – 1.2	0.4 – 1.2
	Cable outer conductor accept range		4.2 – 5.8	4.2 – 5.8	3.1 – 4.0
	Cable outer jacket accept range		5.7 – 7.2	5.7 – 7.2	4.1 – 5.0
Suitable for			e.g. Ören HD-083, HD-103, HD-113, Belden H126T00, LCD 130 A +		e.g. Ören HD-063, Belden H121T00
Connectors	IN		Clamp terminal	Clamp terminal	Clamp terminal
	PORT		F-female (9.45 ± 0.05 mm)	IEC-male	IEC-male
Galvanic isolation	(Acc. to IEC-60728-11 2010)		≤ 8 mA RMS, 230 VAC 50/60 Hz		
	(Semi isolated inner to inner conductor)		≤ 0.7 mA, 2120 VDC (during 1 minute)		
Screening	(Acc. to EN50083-2)		Class A +10 dB		
Insertion loss [dB]	IN - PORT	5 – 1006	0.2 ± 0.2	0.2 ± 0.2	0.2 ± 0.2
		1006 – 1700	0.4 ± 0.2	0.4 ± 0.2	0.4 ± 0.2
		1700 – 2000	0.5 ± 0.3	0.5 ± 0.3	0.5 ± 0.3
		2000 – 2400 ¹⁾	0.8 ± 0.4 typ.	0.8 ± 0.4 typ.	0.8 ± 0.4 typ.
		2400 – 3000 ¹⁾	1.5 ± 0.5 typ.	1.5 ± 0.5 typ.	1.5 ± 0.5 typ.
Return loss [dB]	All ports	5 – 12	16 min.	16 min.	16 min.
		12 – 300	20 min.	20 min.	20 min.
		300 – 1006	18 min.	18 min.	18 min.
		1006 – 1700	14 min.	14 min.	14 min.
		1700 – 2000	12 min.	12 min.	12 min.
		2000 – 3000 ¹⁾	10 min.	10 min.	10 min.
Color			RAL 9010	RAL 9010	RAL 9010
Item No.			53400	53401	53402

¹⁾ 2000 – 3000 MHz typical values



45° ANGLED RF CLICK-IN MODULE 5 – 3000 MHz DOUBLE GALVANIC ISOLATED, F-TYPE

PRODUCT OVERVIEW

“btv-RFM-4-x-x series”

Parameter		Frequency [MHz]	btv-RFM-4-F	btv-RFM-4-F-W	btv-RFM-4-F-K
Connectors	IN		F-female (EN 61169-24, Ø 9.45 ± 0.05 mm)		
	PORT		F-female (EN 61169-24, Ø 9.45 ± 0.05 mm)		
Galvanic isolation (EN 60728-11 2010)	230 V AC 50/60 Hz		≤ 8 mA Inner (input) – Inner (output)		
	230 V AC 50/60 Hz		≤ 2 mA typ. Outer (input) – Outer (output)		
	2120 V DC		≤ 0.7 mA Inner (input) – Inner (output)		
	2120 V DC		≤ 0.7 mA Outer (input) – Outer (output); Outer (input) – Outer (output) during 1 minute		
Screening	(acc. to EN50083-2)		Class A +15 dB		
Insertion loss [dB]	IN - PORT	5 - 1.006	0.5 ± 0.3	0.5 ± 0.3	0.5 ± 0.3
		1006 - 1700	0.7 ± 0.7	0.7 ± 0.7	0.7 ± 0.7
		1700 - 2000	0.9 ± 0.7	0.9 ± 0.7	0.9 ± 0.7
		2000 - 2400	0.9 ± 0.7 typ.	0.9 ± 0.7 typ.	0.9 ± 0.7 typ.
		2400 - 3.000	1.9 ± 0.7 typ.	1.9 ± 0.7 typ.	1.9 ± 0.7 typ.
Return loss [dB]	All ports	5 - 12	14 min.	14 min.	14 min.
		12 - 300	20 min.	20 min.	20 min.
		300 - 1006	18 min.	18 min.	18 min.
		1006 - 1700	14 min.	14 min.	14 min.
		1700 - 2000	12 min.	12 min.	12 min.
		2000 - 3000 ¹⁾	12 typ.	12 typ.	12 typ.
Color			RAL 9010	RAL 9003 white	RAL 9017 black
Order No.			53403	53404	53405

¹⁾ 2000 – 3000 MHz typical values



KEYSTONE MODULES WITH SUITABLE, 45° ANGLED ADAPTER

PRODUCT OVERVIEW

“btv-KSM-1 adapter”

Parameter	Module keystone RJ45 to Cat 5 e	Module keystone RJ45 to Cat 6 +	Module keystone RJ45 to Cat 6 A	Module keystone RJ45 to Cat 6 A	Module keystone RJ45 to Cat 6 A, ICS 500	Module keystone KS 6A/10 RJ45 to Cat 6 A
Dimensions (H x W x D) [mm]	24 x 16.2 x 38.7	24 x 16.2 x 38.7	24 x 16.2 x 40	20 x 16 x 34	21.8 x 14.5 x 38	20 x 16 x 34
Module from	RJ 45	RJ 45	RJ 45	RJ 45	RJ 45	RJ 45
Module to	Cat 5 e	Cat 6 +	Cat 6 A	Cat 6 A	Cat 6 A, ICS 500	Cat 6 A
Connector	REV Connect	REV Connect	REV Connect	Installation without special tool	Installation without special tool	Installation without special tool
Item No.	53413	53414	53415	53416	53417	53418

btv-KSM-1

Keystone click-in module, 45°

Item no. 53412



A module for including a keystone adapter; this allows terminating CAT cables for example at a CAT6a module with a RJ 45 connector



FLYLEAD EXTENSION CABLE FOR RF CLICK-IN MODULES

PRODUCT OVERVIEW

“btv-RFM-flylead”

Parameter		Frequency [MHz]	btv-RFM-flylead
Cable type			Ören HD-063 (0.6/2.7) Class A+ EN 50117
Connector type			1 end F-female 1 end open
Connector material			Brass, NiSn 65/35 plated Inner pin: BeCu, tin plated
Insulation sleeve			Black soft PVC, 85 mm long
Weight			20.5 g (with rubber boot)
Tensile strength (F-female connector) [N]			≥ 7
Length [cm]	Without connector		15
	Including connector		18
Insertion loss [dB]	IN - OUT	5 - 12	0.3 max.
		12 - 30	0.3 max.
		30 - 300	0.3 max.
		300 - 470	0.3 max.
		470 - 1006	0.3 max.
		1006 - 1700	0.5 max.
		1700 - 2000	0.5 max.
		2000 - 2400 ¹⁾	0.5 typ.
		2400 - 3000 ¹⁾	0.5 typ.
Return loss [dB]	All ends	5 - 12	30 min.
		12 - 30	30 min.
		30 - 300	30 min.
		300 - 470	30 min.
		470 - 1006	25 min.
		1006 - 1700	23 min.
		1700 - 2000	23 min.
		2000 - 2400 ¹⁾	18 typ.
		2400 - 3000 ¹⁾	18 typ.
Screening (EN 50083-2) [dB]	Class A +10 dB	5 - 30	95 min.
		30 - 300	95 min.
		300 - 470	90 min.
		470 - 1006	85 min.
		1006 - 1700	80 min.
		1700 - 2000	70 min.
		2000 - 2400 ¹⁾	70 typ.
Impedance [Ω]			75
Order No.			53431

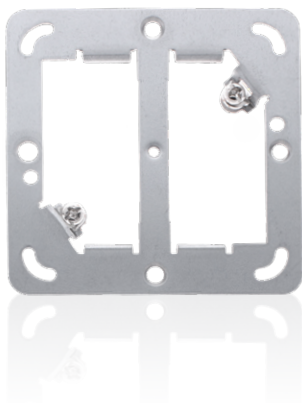
¹⁾ 2000 - 3000 MHz is optional

ACCESSORIES

btv-MMF-1

Metal mounting frame

Item no. 53419


btv-TCP-05

btv-TCP-05, Top cover plate,

European standard

Item no. 53422


btv-TCP-01

btv-TCP-01 Top cover plate

Item no. 53420


btv-BC-05

Blind cap
for top cover plate

Item no. 53423



Item	Description	Item No.
BTv-MMF-1	Metal mounting frame, 2 slots 25 x 50 mm A metal mounting frame to host 2 click-in modules that can be installed into a standard flush-mounted box with a diameter of 60 mm or into the surface mount frame SAD 163, 2 fixing claws are included	53419
BTv-TCP-01	Top cover plate 80 x 80 x 6.5 mm, color RAL 9010, with 2 slots each 25 x 50 mm	53420
BTv-TCP-02	Top cover plate 88 x 88 x 6.5 mm, color RAL 9010, with 2 slots each 25 x 50 mm	53421
BTv-TCP-05	Top cover plate acc. to the European standard, color RAL 9010 and a blind cap at the right hole, 80 x 80 x 8.5 mm	53422
BTv-BC-05	Blind cap for the top cover plate btv-TCP-05, color RAL 9010, diameter 15.5 x 3 mm	53423

ACCESSORIES

btv-MBP-1
Blind plate
for click-in module slot
Item no. 53424



btv-RFM-back-cover
Protection back cover for RF modules
(Fig. installed on IEC module)
Item no. 53428



Item	Description	Item No.
BTV-MBP-1	Blind plate for click-in module slot, color RAL 9010	53424
BTV-MBP-1-W	Blind plate for click-in module slot, color RAL 9003 white	53425
BTV-MBP-1-K	Blind plate for click-in module slot, color RAL 9017 black	53426
BTV-RFM-BACK-COVER	Isolation back cover for the RF click-in modules btv-RFM-1-IEC and btv-RFM-2-F	53428

