

# SPITFIRE ETHERNET CIRCUIT INFORMATION



**NTE:** Network Termination Equipment    **Etherway:** the maximum potential bandwidth of the physical fibre/copper bearer  
**CPE:** Customer Premises Equipment    **Etherflow:** the actual purchased bandwidth (over a given Etherway)

## Copper Ethernet (BT Wholesale)

**NTE Type:** Hatteras/Overture HN408CP [<https://www.google.co.uk/images?q=hn408cp>].  
**NTE Interface:** RJ45.  
**CPE:** The CPE normally needs to be capable of VLAN tagging. Spitfire commonly\* supplies a Cisco C1111/C1117/C1111-8P.  
**How to Connect:** RJ45 port on the NTE, via cross-over cable, to RJ45 port 0/0/0 on CPE.

## Fibre Ethernet (BT Wholesale, TalkTalk Business or Openreach)

Etherway:	<1 Gb/s	1 Gb/s - Default Fibre Presentation	1 Gb/s - Optional RJ45 Presentation	10 Gb/s
<b>NTE Type:</b>	ADVA FSP150CP [ <a href="https://www.google.co.uk/images?q=fsp150cp">https://www.google.co.uk/images?q=fsp150cp</a> ].			
<b>NTE Interface:</b>	RJ45.	SFP Module (Multi-mode; MMF) with an LC Interface [ <a href="https://www.google.co.uk/images?q=fibre+lc+connector">https://www.google.co.uk/images?q=fibre+lc+connector</a> ].	RJ45. <i>Subject to availability. Must have been requested at point of sale.</i>	SFP Module (Single-mode; SMF) with an SC Interface [ <a href="https://www.google.co.uk/images?q=fibre+sc+connector">https://www.google.co.uk/images?q=fibre+sc+connector</a> ].
<b>CPE:</b>	≤200 Mb/s Etherflow: Spitfire commonly* supplies a Cisco C1111/C1117/C1111-8P or a Juniper SRX320/SRX340**  >200 Mb/s Etherflow: Spitfire commonly* supplies a Juniper SRX320/SRX340**			A 10 Gb/s Etherway requires 10 Gb termination. At the time of writing Spitfire does not commonly* supply these routers.
<b>How to Connect:</b>	<b>Cisco C1111/C1117/C1111-8P:</b> RJ45 port on the NTE, via cross-over cable, to RJ45 port 0/0/0 on CPE  <b>Juniper SRX320/SRX340**:</b> RJ45 port on the NTE via cross-over cable, to RJ45 port 7 on CPE.	<b>Cisco C1111/C1117/C1111-8P:</b> LC interface on the NTE, via LC-LC fibre optic patch lead, to LC interface (usually port G0/0/0) on CPE.  <b>Juniper SRX320/SRX340**:</b> LC interface on the NTE, via LC-LC fibre optic patch lead, to LC interface (usually port 15) on CPE.	<b>Cisco C1111/C1117/C1111-8P:</b> RJ45 port on the NTE via cross-over cable, to RJ45 port 0/0/0 on CPE.  <b>Juniper SRX320/SRX340**:</b> RJ45 port on the NTE via cross-over cable, to RJ45 port 7 on CPE.	

## Fibre Ethernet (Virgin Media Business)

Type:	Default RJ45 Presentation	Optional Fibre Presentation
<b>NTE Type:</b>	The NTE varies (but is commonly an Alcatel-Lucent OmniSwitch).	
<b>NTE Interface:</b>	RJ45.	MMF. If the NTE has multiple ports, the one to use is typically FE1/1 or GE1/9. Spitfire Provisioning will normally confirm the port number to use.
<b>CPE:</b>	≤200 Mb/s Circuits: Spitfire commonly* supplies a Cisco C1111/C1117/C1111-8P or a Juniper SRX320/SRX340**  >200 Mb/s Circuits: Spitfire commonly* supplies a Juniper SRX320/SRX340**	
<b>How to Connect:</b>	<b>Cisco C1111/C1117/C1111-8P:</b> RJ45 port (commonly FE1/1 or GE1/9) on the NTE, via cross-over cable, to RJ45 port 0/0/0 on CPE  <b>Juniper SRX320/SRX340**:</b> RJ45 port (commonly FE1/1 or GE1/9) on the NTE via cross-over cable, to RJ45 port 7 on CPE.	<b>Cisco C1111/C1117/C1111-8P:</b> LC interface on the NTE, via LC-LC fibre optic patch lead, to LC interface (usually port G0/0/0) on CPE.  <b>Juniper SRX320/SRX340**:</b> LC interface on the NTE, via LC-LC fibre optic patch lead, to LC interface (usually port 15) on CPE.

## Fibre Ethernet (COLT)

**NTE Type:** The NTE varies (but is commonly an Accedian MetroNode LT-S).  
**NTE Interface:** RJ45. If the NTE has multiple ports, the one to use is typically FE1/1 or GE1/9 but Spitfire Provisioning will normally confirm the port number to use.  
**CPE:** Varies.  
**How to Connect:** RJ45 port on the CPE, via cross-over cable, to RJ45 port on the NTE (commonly FE1/1 or GE1/9).

## FTTC Ethernet (BT Wholesale)

**NTE Type:** The FTTC Ethernet service uses VDSL2 and terminates on an Openreach NTE5.  
**NTE Interface:** Openreach NTE5.  
**CPE:** The customer CPE router must include an integrated VDSL2 modem - for Cisco routers, a VDSL2 WAN Interface Card (WIC). Spitfire may also supply a DrayTek router which includes a VDSL2 modem.  
**How to Connect:** POTS lead from router (either DSL port or DSL WIC) to Openreach NTE5. Please also follow the DSL Information Sheet at <https://www.spitfire.co.uk/about/knowledge-base/>, especially to avoid double filtering!

## FTTC Ethernet (TalkTalk Business)

**NTE Type:** The FTTC Ethernet service uses VDSL2 and terminates on an Openreach NTE5. TalkTalk Business typically provide a Comtrend VR3030 modem [<https://www.google.co.uk/images?q=Comtrend+VR3030>] as the NTE.  
**NTE Interface:** RJ45 port on the TalkTalk Business VDSL2 modem.  
**CPE:** Spitfire may supply a DrayTek router.  
**How to Connect:** RJ45 port on the TalkTalk Business NTE, via cross-over cable, to the WAN port on the CPE router.  
**Notes:** A steady DSL light on the TalkTalk Business NTE indicates sync. The Internet light will remain extinguished (this is correct behavior).

## A note on the use of Media Converters

Spitfire recommends against the use of Media Converters such as those used to convert between fibre and copper. It is instead recommended that a customer's router be directly connected to the supplier NTE via a single cable. Any advice or guidance from Spitfire in relation to Media Converters would be limited and provided on a non-guaranteed basis. Spitfire-supplied routers have the interface and cable to match the interface on the NTE without the need for a Media Converter.

## Additional Information

The above information was correct at the time of publishing.  
 This document is intended as a support reference guide and not for sales purposes.  
 \*N.B. supplied hardware is likely to change over time.

\*\*Juniper SRX340 is usually recommended over a SRX320 for use with Ethernet circuits of 500 Mb/s or greater (for BT Wholesale, TalkTalk Business or Openreach that refers to the Etherflow).  
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**For assistance please contact Spitfire Support  
 on 020 7501 3030 or via [support@spitfire.co.uk](mailto:support@spitfire.co.uk).**