

# Internet Fiber Router



With growing network services such as HDTV, IPTV, voice-over-IP (VoIP) and multimedia broadband applications, the demand for bandwidth rises quickly. The current broadband environment has not reached its requirements. Rather, the FTTH (fiber-to-the-home) would be the most promising NGN (Next Generation Networking) application to fulfill the demand.

PLANET Wireless Internet Fiber Router, FRT-40xN series, is designed with 802.11n and 2T2R MIMO antenna technology to provide office and residential users witch the ideal solution for sharing a high-speed fiber Internet connection and four 10/100Mbps Fast Ethernet backbone. The FRT-40xN series is a perfect FTTH Digital Home Router which can provide very high performance access to Internet, both downstream and upstream up to 100Mbps through the fiber interface. The FRT-40xN series supports several common optical connectors for the WAN connection, such as 100Base-BX, 100Base-LX, 100Base-FX and Small Form Factor Pluggable (SFP). The Fiber Router can be implemented easily for optical fiber deployment.

With the built-in IEEE 802.11b/g and 802.11n wireless network capability, the FRT-40xN series allows any computer and wireless-enabled network device to connect to it without additional cabling. The 802.11n wireless capability gives you the highest speed of wireless experience ever. With an 802.11n compatible wireless adapter installed in your PC, the files can be transferred at up to 300Mbps. The radio coverage is also doubled to offer the high speed wireless connection even in a wide space of your office or house.

To secure the wireless communication, the FRT-40xN series supports the up-to-date encryptions such as WEP, WPA-PSK and WPA2-PSK. In order to simplify the security settings, the FRT-40xN series supports WPS configuration with PBC/PIN type for users to connect to a secured wireless network easily.

### **Features**

- · Fiber Interface for FTTH / IPTV applications
- Complies with IEEE 802.3, IEEE 802.3u 10/100Base-TX, 100Base-FX standard
- Long distance connection based on optical fiber transceiver
- Various choices for fiber-connectors from SC, WDM and SFP, multi-mode / single-mode fiber / 100Base SFP
- Functions with PLANET 100Base-FX Media Conversion and MFB-Series Transceiver
- · QoS support
- 802.1Q VLAN support
- Built-in 4-Port 10/100 Mbps Ethernet switch
- Router / Bridge / WISP mode support
- · SPI Firewall security for Anti-DoS Prevention
- Supports IP / Port / MAC Filtering and Content Filtering
- TS-1000 and 802.3ah OAM support
- Supports SNMP v1/v2c
- IEEE 802.11n wireless technology backward compliant with 802.11b/g standard
- · Capable of up to 300Mbps wireless data rate
- · WPS / WMM support
- Supports 64/128-bit WEP, WPA-TKIP(PSK), WPA2-AES(PSK), 802.1x



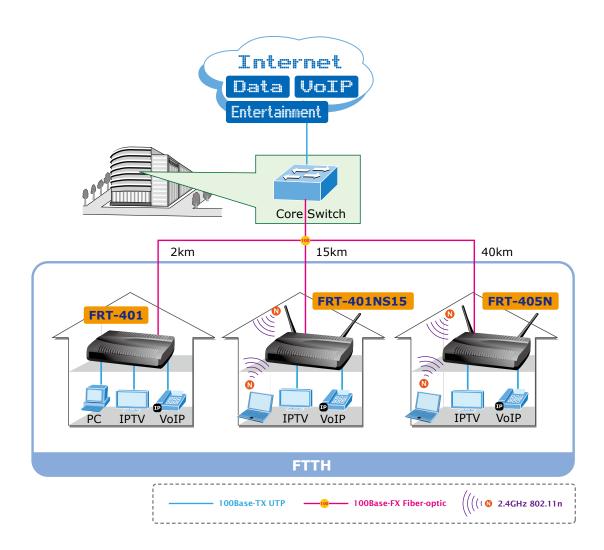
The FRT-40xN series provides QoS functions to enable smooth network services. Traffic priority can be assigned by the router to guarantee some important and specific transmissions, especially for real-time streaming multimedia applications such as the on-line gaming, VoIP, and IPTV to keep the bandwidth usage smoothly. Moreover, the FRT-40xN series not only provides basic router functions like DHCP server, Virtual Server, DMZ, and UPnP, but also offers full firewall functions including Network Address Translation (NAT), IP / Port / MAC Filtering and Content Filtering. It serves as an Internet firewall to protect your network from being accessed by unauthorized users.

## **Application**

#### Internet Connection with Fiber Optic

The FRT-40xN series is the perfect solution to connecting a small group of PCs to a high-speed Internet connection allowing multiple users to access the Internet simultaneously. With the built-in 100Base-FX fiber interface, the FRT-40xN series supports different optic types for WAN distance up to 15~60 km through the Fiber connection. The FRT-40xN is the ideal solution for FTTH (Fiber-to-the-home) applications. It can handle multiple high-throughput services such as IPTV, on-line gaming, VoIP and Internet access to keep the bandwidth usage smoothly. The FRT-40xN series also incorporates a 4-Port 10/100Base-TX switching hub, which makes it easily create or extend your LAN and prevents the attacks from Internet.

Adopting IEEE 802.11n technology, the FRT-40xN series provides a better wireless signal, higher data rate and performance than 802.11g compliant routers. Furthermore, the FRT-40xN features the latest security and firewall functions to prevent unauthorized access or invasion. By just clicking the WPS button and setup step by step, you can easily get in the wireless network and enjoy high speed Internet transmission in your home or office.





# **Specification**

Product		802.11n Wireless Internet Fiber	r Router		
Model		FRT-401N	FRT-401NS15	FRT-405N	
	WAN	1 x Gigabit TP / SFP Combo Port (10/100/1000Base-T / SFP GbE )			
Ports	LAN	1 x PON Port			
	Wireless	RS-232 Serial Port (9600, 8, N, 1)			
	Connector	SC SFP			
Optic Interface	Mode	Multi-mode	Single-mode	Varies on module	
	Distance	2km	15km	Varies on module	
Optic Wavelength	Diotarioo	850nm	1310nm	-	
	Max.	-14	-7	-	
Launch Power(dBm)	Min.	-19.0	-20	-	
Receive Sensitivity		-34.5	-28	-	
Maximum Input power		-14	-8	-	
Fiber-optic Cable		<ul> <li>50/125µm or 62.5/125µm multi-mode fiber cable, up to 2km.</li> <li>9/125µm single-mode cable, provide long distance for 15/20/35/50km or longer (varies on SFP module)</li> </ul>			
		PWR, WPS, WLAN, Security, Fiber, LAN1-4			
LED Indicators					
Button		1 x reset button, 1 x WPS button			
Software					
Max. Sessions		4096			
Protocol / Feature		Static Routing and RIPv1/2 DMZ and Virtual Server 802.1D 802.1Q VLAN support QoS SNTP DHCP Server / Client IGMP Proxy and DNS Proxy Universal Plug and Play (UPnP) Compliant DDNS (Dynamic Domain Name System)			
	Windows Otandard		•		
	Wireless Standard	Compliant with IEEE 802.11n, 802.11g and 802.11b standards			
	Frequency		2.4 to 2.4835GHz (Industrial Scientific Medical Band )		
	Channels	Maximum 14 Channels, depending o	n regulatory authorities		
	Antenna	2 x 2dBi detachable Antenna			
Wireless	Wireless Data Encryption	64 bit / 128 bit WEP, WPA-PSK, WPA, WPA2, 802.1x encryption, and WPS PBC			
	Wireless Data Rate	IEEE 802.11b: 1/2/5.5/11Mbps IEEE 802.11g: 6/9/12/18/24/36/48/54Mbps IEEE 802.11n: 14/29/43/58/87/116/130/144Mps in 20MHz, 30/60/90/120/180/240/270/300Mbps in 40MHz			
	WDS	WDS repeater support			
VPN		VPN Pass-through			
Security		Built-in NAT Firewall MAC / IP/ Port Filtering Content Filtering SPI Firewall support Password protection for system management			
Management		Web-based configuration Available Syslog support TR-069* SNMP v1/v2c TS-1000 and 802.3ah OAM support			
<b>Environment Specificat</b>	ions				
Dimensions (W x D x H)		186 x 143 x 35mm			
Power		12V DC, 1A			
Temperature / Humidity		Operating: 0~50 degrees C, 5~90% (non-condensing), Storage: -10~70 degrees C, 0~95% (non-condensing)			
Emission		FCC, CE			
EIIIISSIUII		FCC, CE			

 $<sup>^{\</sup>star}$  Features can be enhanced by future firmware upgradeable.



## **Ordering Information**

FRT-401N	Internet Fiber Router (SC, MM) with 4-port switch - 2km
FRT-401NS15	Internet Fiber Router (SC, SM) with 4-port switch - 15km
FRT-405N	Internet Fiber Router (mini-GBIC, SFP) with 4-port switch

### Accessories

Transceivers	For FRT-405 Only.
MFB-F20	SFP-Port 100Base-FX Transceiver (1310nm) - 20K
MFB-F40	SFP-Port 100Base-FX Transceiver (1310nm) - 40KM
MFB-F60	SFP-Port 100Base-FX Transceiver (1310nm) - 60KM
MFB-FA20	SFP-Port 100Base-BX Transceiver (WDM,TX:1310nm) -20KM
MFB-FB20	SFP-Port 100Base-BX Transceiver (WDM,TX:1550nm) -20KM
MFB-FX	SFP-Port 100Base-FX Transceiver (1310nm) -2KM

# Related Accessory

MFB-Series Transceiver	Din-Rail Kit For Media Converter

Tel: 886-2-2219-9518 Email: sales@planet.com.tw Fax: 886-2-2219-9528 www.planet.com.tw

