

ADTRAN Series

# GFAST

## Optical Network Units

Models: 500G and SDX 2221 Series



# 500G AND SDX 2221 SERIES GFAST ONUs

## Advancing the Gigabit Society

The drive towards a Gigabit Society that is being championed by regulatory agencies around the world is fueling the need for pushing fiber deeper into the network and closer to the end user. However, the cost of delivering Fiber-to-the-Home (FTTH) can be prohibitive in many areas. Next-generation broadband technologies based on ITU-T Gfast standards (106 MHz and 212 MHz) enable symmetric Gigabit services over existing copper or coax infrastructure. Using Fiber-to-the-distribution-point (FTTdp), Fiber-to-the-Premises (FTTP) and Fiber-to-the-Building (FTTB) architectures, service providers can deliver Gigabit services at a reduced cost per connection, accelerating the path to a Gigabit society.

## Unlock Symmetric Broadband Services

A growing number of live-streaming, virtual reality, online learning and gaming applications and services require an approach that disrupts restrictive DSL-like “set-and-forget” upstream/downstream bandwidth configurations. The ADTRAN 500G and SDX 22xx series optical network units (ONUs) support dynamic time assignment (DTA), allowing responsive broadband that can burst to full bandwidth potential based on application needs. Service providers can now cost-effectively deliver symmetric Gigabit services that dynamically adapt to customer bandwidth demands.

## Open Networks, Unlimited Possibilities

To eliminate single-vendor lock-in typical in access networks, ADTRAN offers a standards-based carrier-grade set of products and solutions spanning the entire access network, from the central office to the cabinet and the customer premises. Uniquely software-defined access (SD-Access) Gfast nodes are built using modern data center principles allowing for their native integration into any open source SDN controller such as the ADTRAN Mosaic Cloud Platform, and are both chipset and physical-layer agnostic. This affords service providers a vastly simplified path to new Gigabit service on-boarding regardless of FTTH OLT or DSLAM vendor incumbency, while supporting the rapid creation and delivery of user-driven services.

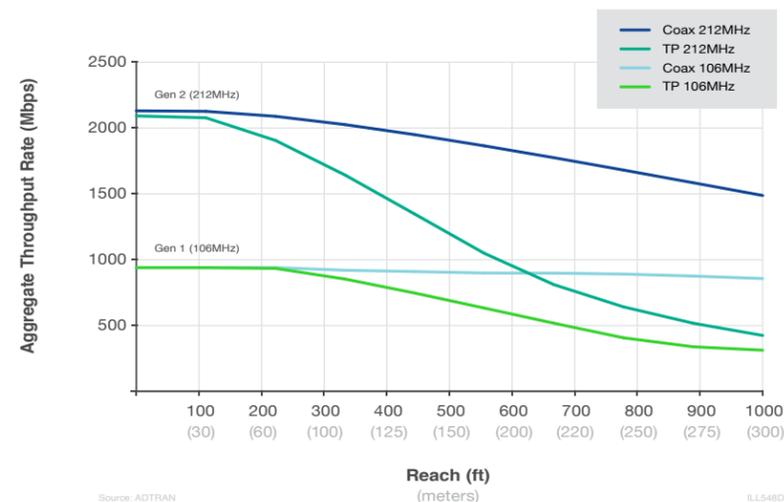
## Eliminate In-Home Wiring Concerns

The ADTRAN Gfast ONUs are a complementary solution for GPON, XGS-PON or NG-PON2 based FTTH networks. The ONUs, deliver ITU-T G.9700/9701 standards-based Gfast (106 MHz or 212 MHz), enabling service providers to utilize the existing wiring (twisted pair or coax) within the customer premises to deliver Gigabit services. With FTTH, delivering the last 300 ft. (100 m) has presented a problem for service providers and ADTRAN's solution changes the dynamics allowing for ultra-broadband services to be deployed rapidly, and with minimal installation and construction costs.

## Target Multiple Customer Segments

ADTRAN offers a comprehensive portfolio of hardened Gfast ONUs ideal for single-family units (SFUs), multi-dwelling units (MDUs) or shelter-based deployments. Indoor units are rack-mountable making them ideal for FTTB deployments serving high-density MDUs. Sealed outdoor variants can be mounted on an exterior wall, pedestal, or pole, or installed inside a handhole making them ideal for FTTP or FTTdp deployments to target single-family units (SFUs) or MDUs. They can also be housed in small outdoor cabinets. Depending on the placement, the solution can be span-, local-, or reverse-powered from the subscriber.

## GFAST PERFORMANCE (TWISTED PAIR VS. COAX)



## Portfolio Summary

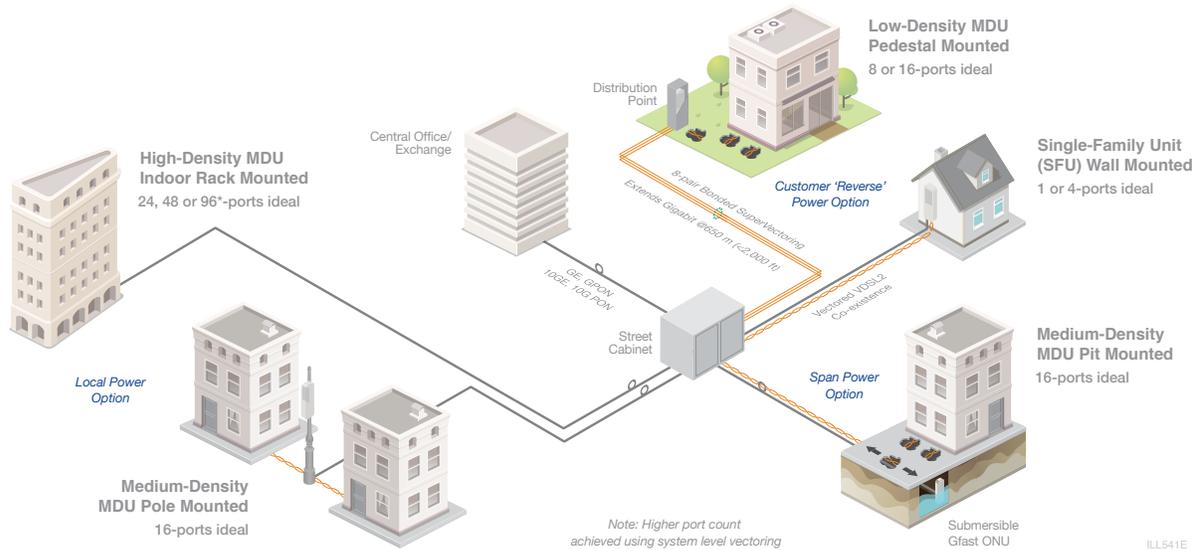
	Gfast 106 MHz Profile			Gfast 212 MHz Profile (Sealed OSPs)			Gfast 212 MHz Profile (Rack-Mountable)		
	508G (TP)	516G* (TP)	516G* (CX)	SDX 2221-01 (TP/CX)	SDX 2221-04 (TP)	SDX 2221-08 (TP)	SDX 2221-16 (TP)	SDX 2221-24 (TP, Indoor/Outdoor)	SDX 2221-48 (TP, Indoor/Outdoor)
Speeds	Up to 1 Gbps (aggregate)			2+ Gbps (aggregate)					
Number of Subscribers	8-16			1-4		8-16		24	48 (up to 96 with stacking)
Application	SFU/Medium-density MDU			SFU		SFU / Medium-density MDU		High-density MDU	
Uplinks	2 x 1/2.5 Gbps			1 x 1/2.5 Gbps (GPON)		1 x 1/10 Gbps (GPON/10G PON)		2 x 1/10 Gbps (GPON/10G PON)	
Cabling Support	Twisted pair	Coax	Twisted pair or Coax	Twisted pair			Twisted Pair		
Housing	Fully sealed and Submersible Outdoor Design						Weather-hardened, Pizza-box (Indoor/Outdoor)		
Deployment	Pedestal, Pole, Wall, Pit or Handhole Mounting						Rack or Wall Mountable		
Operational Model	FTTP, FTTdp, FTTB, FTTCab								
Management	OMCI / Open SDN Controller / Mosaic Cloud Platform								
SDN-Ready/Interoperability	Yes. Interoperable with ADTRAN or Any 3rd-party OLT or CPE								
Operating Environment	-40C to +65C (-40F to +149F); 100% Relative Humidity, Condensing, Weather-hardened						-40C to +70C (-40F to +158F); 90% Relative Humidity, Non-Condensing		
Power	Span, Local (AC/DC)		Reverse		Reverse, Span, Local (AC/DC)		Local (AC/DC)		

\*These DPUs do not support VDSL2 fallback



# 500G AND SDX 2221 SERIES GFAST ONUs

## DEPLOYMENT VARIANTS



## Ordering Information

	Reverse Power	Span Power (RFT-V)	Local Power (AC)	Local Power (DC)
<b>Gfast 106MHz</b>				
508G 8-port Gfast ONU (TP)				11321707Fx*
516G 16-port Gfast ONU (TP)		11321763Fx*	11321763Fx*	11321763Fx*
516G 16-port Gfast ONU (CX)		11321764Fx*	11321764Fx*	11321764Fx*
<b>Gfast 212MHz with VDSL2 Fallback</b>				
SDX 2221-01 Single-Port Gfast ONU (TP/CX)	11321791Fx*			
SDX 2221-04 4-Port Gfast ONU (TP)	11321706Fx*			
SDX 2221-08 8-Port Gfast ONU (TP)	11321771Fx*	11321771Fx*	11321771Fx*	11321771Fx*
SDX 2221-16 16-Port Gfast ONU (TP)	11321781Fx*	11321781Fx*	11321781Fx*	11321781Fx*
SDX 2221-24 24-port 1RU Gfast ONU (TP)			11321714F2*	
SDX 2221-48 48-Port 1RU Gfast ONU (TP)			11321774F5*	

\*Additional ONU configurations including options for chipsets, line test, SFP and cabling are available for quote. Please email [support@adtran.com](mailto:support@adtran.com)



Pulse Supply  
909 Ridgebrook Road., Sparks, Maryland 21152, USA  
TEL : +1-410-583-1701 FAX : +1-410-583-1704



E-mail: [sales@pulsesupply.com](mailto:sales@pulsesupply.com)  
<https://www.pulsesupply.com/adtran>

### 611321707Fx-8H

February Copyright © 2019 ADTRAN, Inc. All rights reserved. ADTRAN believes the information in this publication to be accurate as of publication date, and is not responsible for error. Specifications subject to change without notice. ADTRAN® and the other trademarks listed at [www.adtran.com](http://www.adtran.com) are registered trademarks of ADTRAN, Inc. or its affiliates in various countries. All other trademarks mentioned in this document are the property of their respective owners.

ADTRAN warranty duration and entitlements vary by product and geography. For specific warranty information, visit [www.adtran.com/warranty](http://www.adtran.com/warranty)

ADTRAN products may be subject to U.S. export controls and other trade restrictions. Any export, re-export, or transfer of the products contrary to law is prohibited. For more information regarding exportation of ADTRAN items (e.g. commodities, technology, software), please visit [www.adtran.com/exportlicense](http://www.adtran.com/exportlicense)



ISO 9001  
ISO 14001  
TL 9000