

# **Angled Field Installable Connector for G-PON FTTH Network**



**PTOGAIN**<sup>USA</sup>

# Angled-PC Field Installable Connector for FTTH network

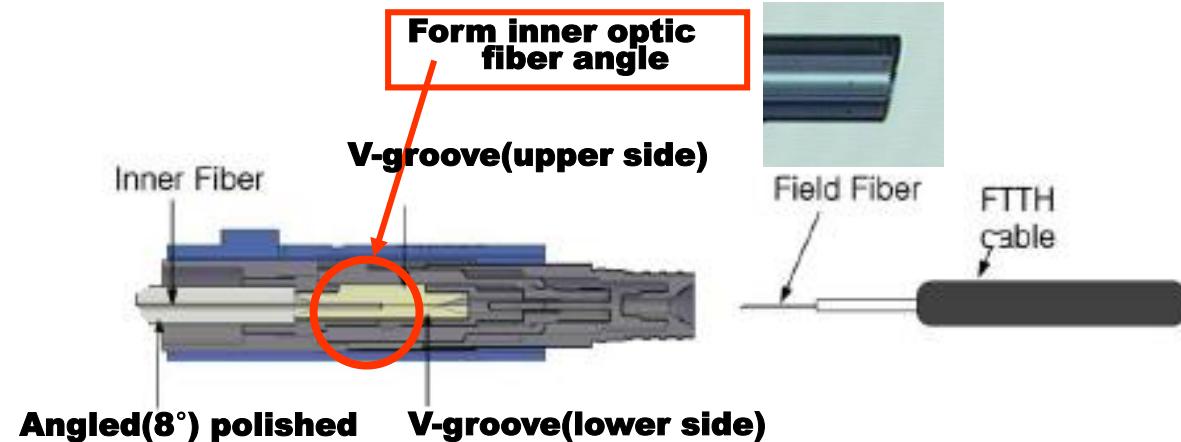


- The transmission of analog video signals by FTTH
- High Speed Internet service by 10G-Ethernet FTTH

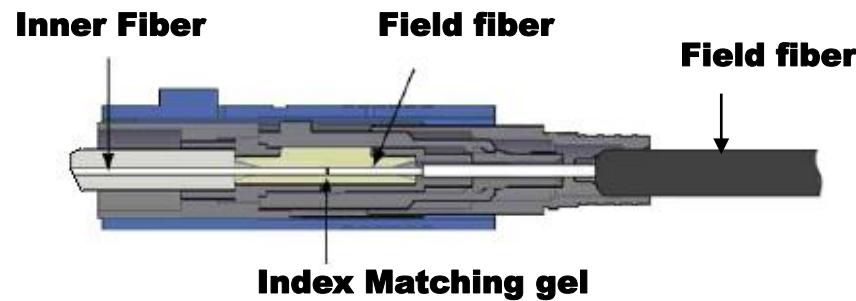
# Characteristics & Performance

Test method	Test item	Division	Performance Criteria
Optical characteristics	Insertion Loss	Insertion Loss	Average : < 0.5dB Limit : < 0.65dB
	Reflection Loss	Return Loss	> 40dB (PC) > 55dB (APC) > 60dB(APC)-Real APC
Mechanical characteristics	Vibration, Tensile, Shock	Insertion Loss change begin and after the test	Average : < 0.2dB Limit : < 0.5dB
	Repetitive connecting characteristics	Insertion Loss change begin and after the test	Average : < 0.2dB
Environmental Characteristics	Temperature cycle Characteristics	Insertion Loss change begin and after the test and during the test	Average : < 0.5dB Limit : < 0.7dB
		Return Loss during the test	> 35dB (PC) > 40dB ( APC) > 60dB (APC)-Real APC
	Temp/humidity Thermal degradation characteristics	Insertion Loss change begin and after the test and during the test	Average : < 0.5dB Limit : < 0.6dB
		Return Loss during the test	> 40dB (PC) > 45dB (APC) > 60dB (APC)-Real APC

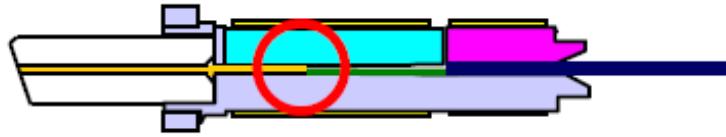
# Configuration



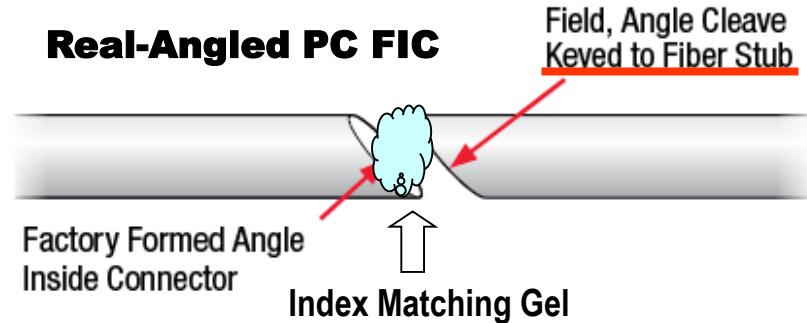
**Return Loss < -60dB**



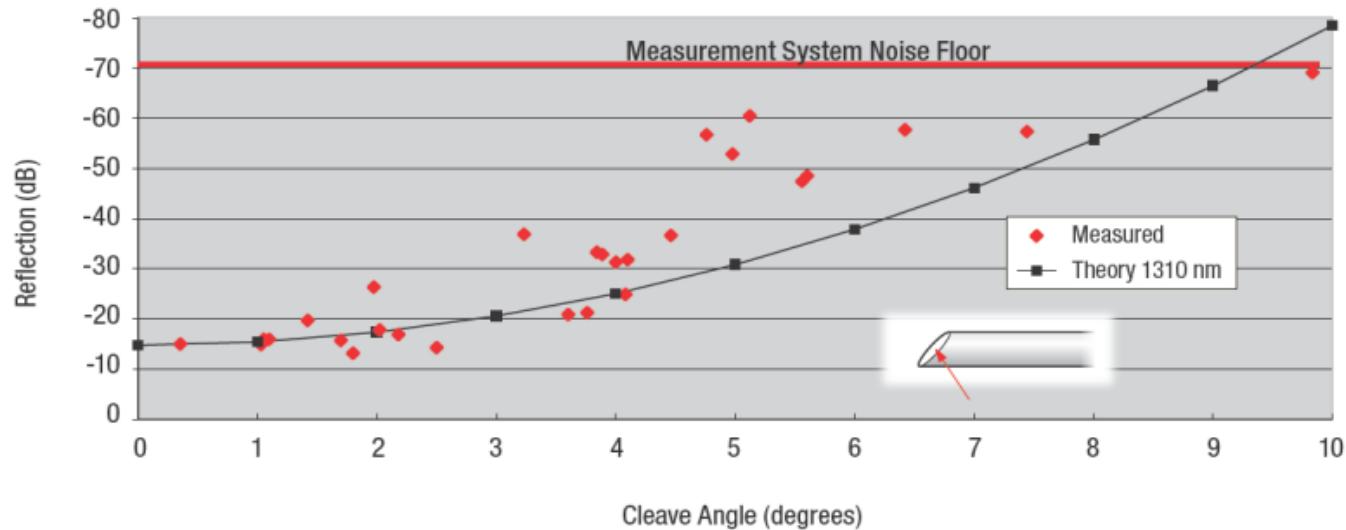
# Real FAOC: Application of Angle cleaver



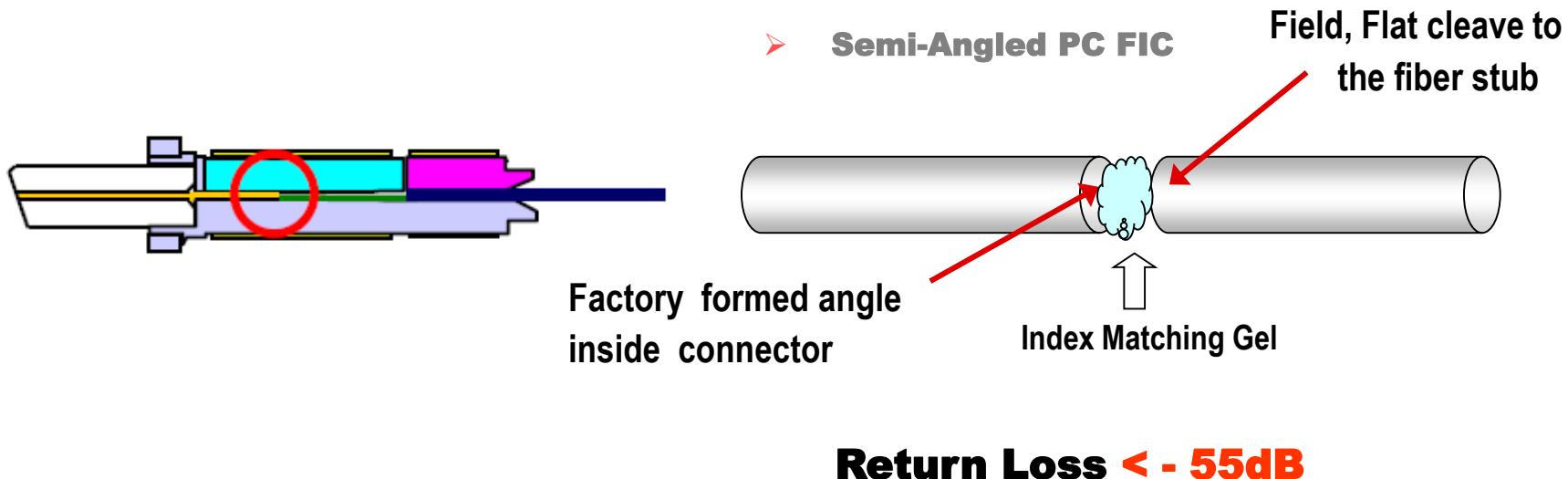
## ➤ Real-Angled PC FIC



**Return Loss < - 60dB**



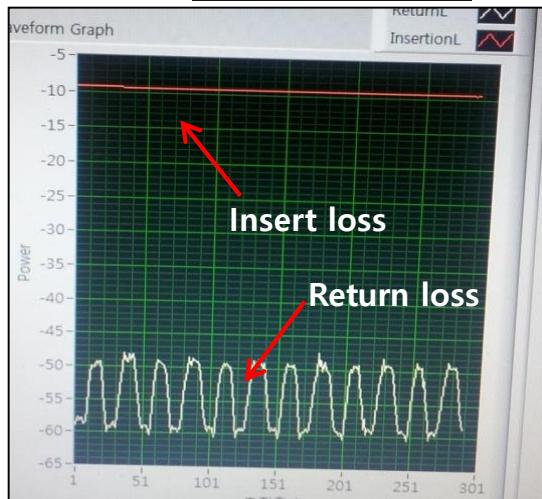
# FAOC : Application of general cleaver



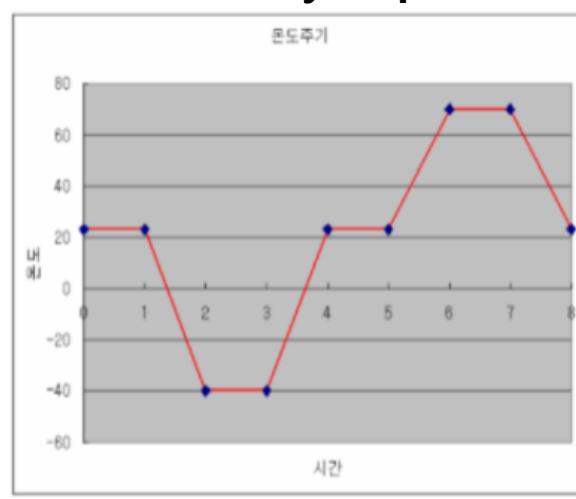
# Temp. Cycle vs Return Loss

- Change in return loss : > 60dB(Real APC) vs >40dB(General APC)  
when temp varies -40°C → + 75 °C

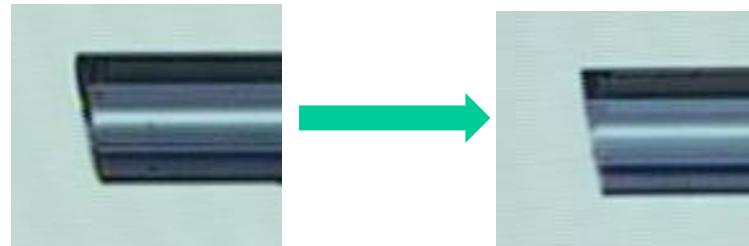
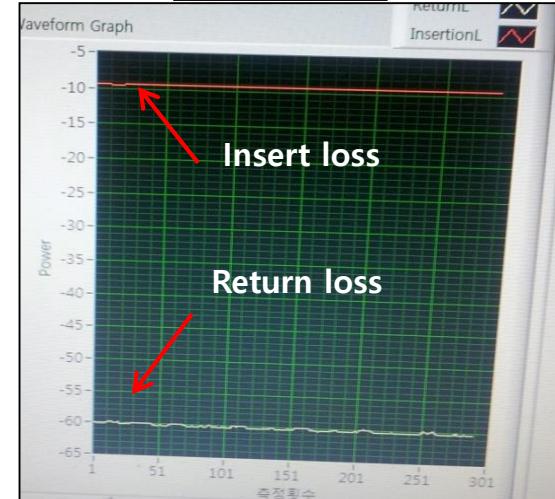
General FAOC



Thermal cycle profile

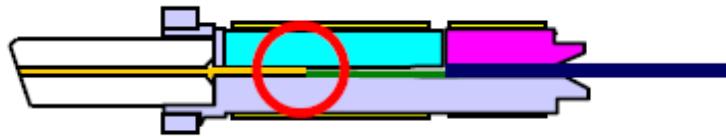


Real FAOC

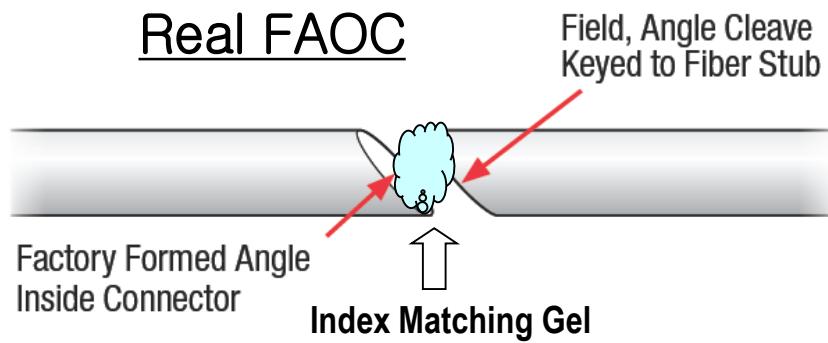


Enlarged figure of optical fiber. (Angle fiber)

# Real FAOC

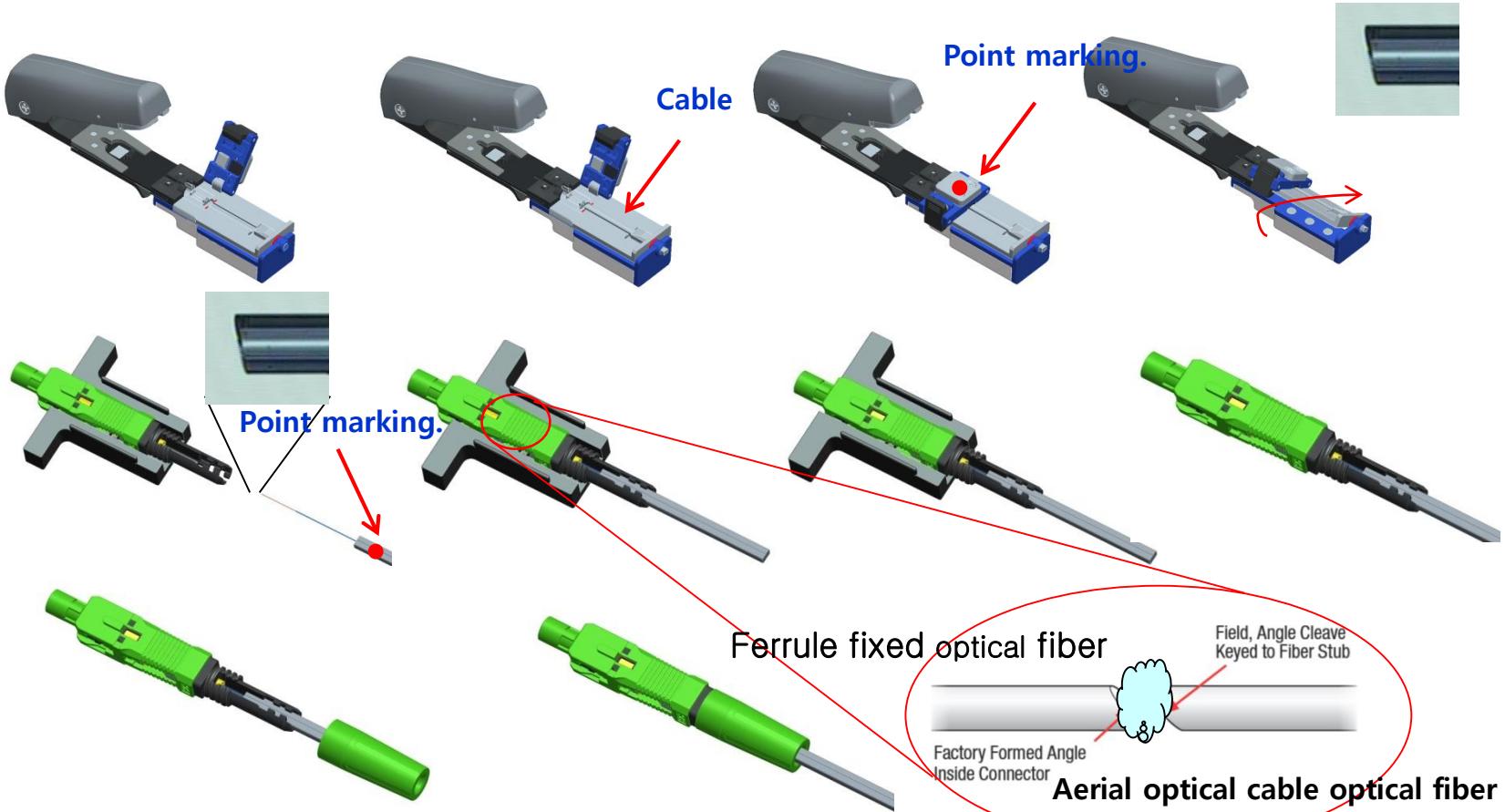


Real FAOC



- Performance degradation of Index Matching Gel by temperature variation ( $-40^{\circ}\text{C} \sim +75^{\circ}\text{C}$ )
- Compensating performance of Index Matching Gel by creating angle at the each end of optic fiber.

# Installation manual for Real APC and Angle cleaver



# Cost Competitive ‘Angle Cleaver’



Optogain’s Angle cleaver



T-11



Angle Cleaver 2535



S 341

***Performance, Price, Portable !!***

Thank You!