

# FTTx SYSTEMS

Microtubing  
Network Solutions

A bundle of colorful optical fiber tubes is shown in an orange holder. The tubes are in various colors including yellow, blue, green, pink, and white. The background is a light blue and white pattern of fiber optic lines and dots.

MiniGlide® & MicroGlide®  
Optical Fibre Tubing Systems

# FTTx Systems

## System Overview

### The smart choice for smart networks

#### A thirst for Ultra Broadband...

The evolution of broadband markets and associated services & applications such as triple play, HDTV, video on demand, VoIP etc. are all factors driving the ever increasing demand for very high speed (VHS) internet to the end user.

#### Driving FTTX fibre deployment

In their bid to meet future needs, operators & service providers are deploying fibre based infrastructures, focusing on metropolitan and access networks providing VHS to the residential and business sectors.

Helping you achieve tomorrow's networks

Future Proof  
Flexible  
Cost Effective

#### The smart fibre pathway

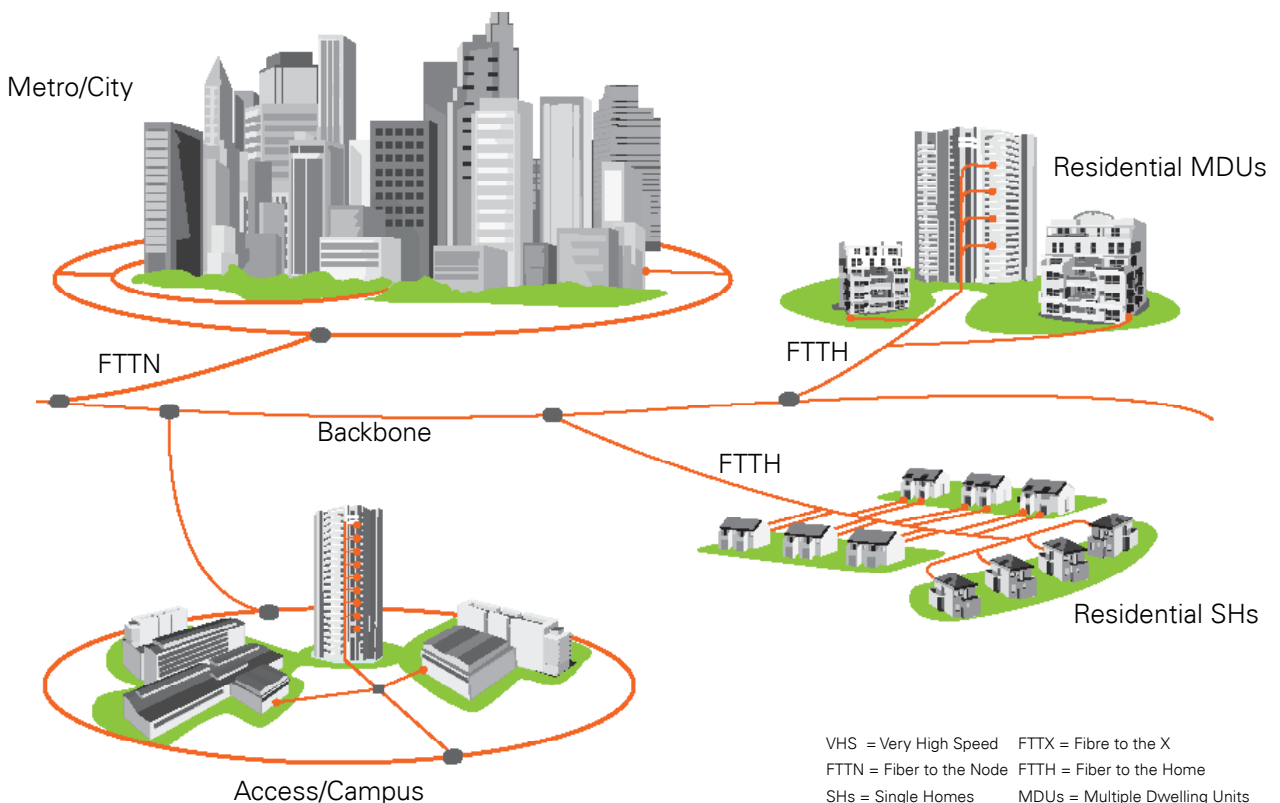
MiniGlide® and MicroGlide® solutions are microtubing systems developed especially to meet the requirements of FTTX networks. Designed for scalable and economic installation, the systems enable rapid and simple

fibre deployment from trunk networks through to the end user.

The modular tubing infrastructure is based on individual small diameter tubes supplied loose or bundled in cable-like assemblies for use in new or existing networks.

The flexible systems allow for future expansion without the initial fibre outlay as each tube is populated when required by blowing in fibre mini-cable or blown fibre units, leaving empty tubes to satisfy further demand.

### System Applications



## MiniGlide® & MicroGlide® systems

### MiniGlide®

The ideal solution for metropolitan, distribution and campus networks. Designed for use with mini-cable (up to 96 fibre), it offers high fibre capacity and allows fibre to be blown in as and when required, providing vast expansion scalability with minimal initial investment.

MiniGlide® is the perfect complement to MicroGlide® in access networks. It is typically installed from the distribution node to the intermediate splice, whereas MicroGlide® is normally used for the final section to the end user.

Whether you are  
deploying a FTTN or  
FTTH network, we  
have the solution to  
your needs

### MicroGlide®

Designed for use with blown fibre units (up to 12 core). It is the perfect solution for connecting a number of smaller buildings such as small and medium sized businesses, campuses and residential areas or where initial fibre penetration is low.

### An Experienced Partner

With many years experience in supporting large and small scale deployments, we offer "built to last" proven systems with paramount quality and performance, protecting your investment in the long term.

### Enhanced Technical Support

We pride ourselves in providing tailored solutions to our customers if our standard range does not cover your requirement. Our development engineers will be pleased to devise special application products.

## Systems Benefits

- Deferred capital cost
- No need to guess future fibre requirements
- Maximised network capacity
- Rapid installation and short response time
- Flexible network expansion, connection and upgrade
- Fast & easy branching-off
- Point to point fibre connections
- Limited splicing
- Reduced engineering costs
- Mid-span access at any location, at any time
- No disruption to live fibre

### MiniGlide®

For use with mini-cable up to 96 Fibres.  
 Network applications: backbone, trunk, metropolitan, distribution, access, last mile

#### Individual Tubes

- Permanent low friction inner coating for enhanced blowing performance
- Smooth or ribbed inner wall
- Supplied in a range of colours - opaque, translucent and stripes
- Supplied as singles tubes or assemblies

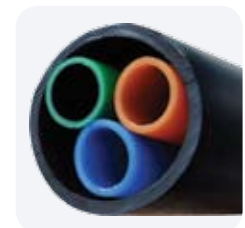
Tube OD	Tube ID
7mm	5.5mm
8mm	6mm
10mm	8mm
12mm	10mm
14mm	11mm

Other ODs/IDs available on request

#### Tubes Assemblies

- Sheathed Bundles : 1, 2, 4, 7 way - as standard
- Applications: Outdoor - New and existing networks  
 Indoor - Low Smoke Zero Halogen (LSZH)
- Sheathing Options: Direct Bury  
 Direct Install  
 Metallic & Non Metallic  
 Low Smoke Zero Halogen
- Special Applications Aerial  
 Anti-rodent  
 Anti-termite  
 Armoured  
 Chemical Resistant

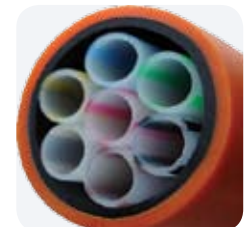
We can also supply factory installed loose tubes into duct.  
 Tube OD and count vary as per customer requirement.



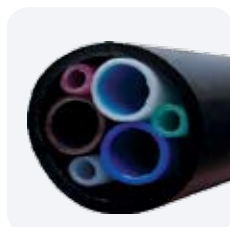
Direct Install - 3-way 10mm



Direct Bury Metallic - 7-way 10mm



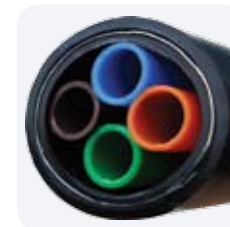
Direct Bury Non-Metallic - 7-way 10mm



Hybride - 10mm & 5mm



Aerial - 4 way 12mm



Armoured - 4 way 12mm

## Systems Components

### MicroGlide®

For use with blown fibre units up to 12 Fibres.

Network applications: FTTx - Access networks to end user, residential (MDUs and SHs) and business parks.

#### Individual Tubes

- Permanent low friction inner coating for enhanced blowing performance
- Smooth inner wall
- Supplied in a range of translucent colours
- Supplied as singles tubes or assemblies

Tube OD	Tube ID
3mm	2.1mm
5mm	3.5mm

Other ODs/IDs available on request

#### Tubes Assemblies

- Available in: 1, 2, 4, 7, 12, 19 and 24 way
- Applications: Outdoor - New and existing networks  
Indoor - Low Smoke Zero Halogen (LSZH)
- Sheathing Options: Direct Bury  
Direct Install  
Metallic & Non Metallic  
Low Smoke Zero Halogen
- Special Applications: Aerial  
Anti-rodent  
Anti-termite  
Armoured  
Chemical Resistant



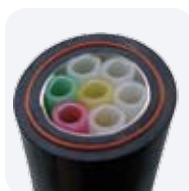
Direct Install - 24 way 5mm



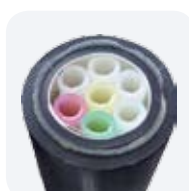
Direct Bury Metallic 24 way 5mm



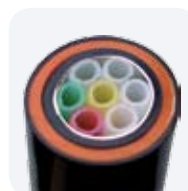
Direct Bury Non-Metallic 24 way 5mm



Anti-Termite - 7 way 5mm



Anti-Rodent - 7 way 5mm



Chemical Resistant - 7 way 5mm



Indoor LSZH - 24 way 5mm

### Connectivity

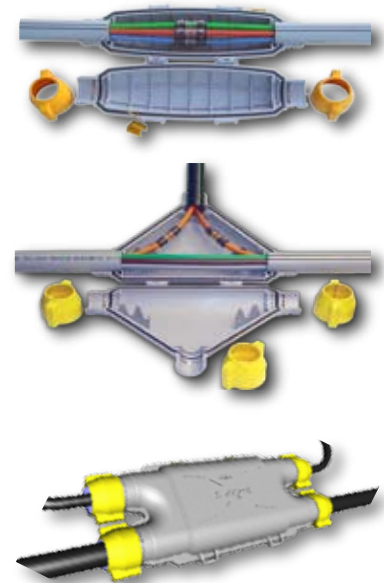
Point to Point connections are easily achieved by extending or branching off the network of tubes by cutting and connecting them with “push-fit” fittings and placing them into protective joint boxes. Fibre can then be blown in, as and when required, through to the end user without interruption/splicing.

#### Matrix® Joints

- Can be installed in an access chamber or buried directly into the ground
- Fully retrofittable and reusable
- Easy to install, no tools required

	Port Dimensions		
In Line Joint*	50-50 mm	40-40 mm	32-32 mm
T-Branch Joint*	50-50-50 mm	40-40-40 mm	32-32-32 mm
	50-50-40 mm	40-40-32 mm	
	50-50-32 mm	40-40-25 mm	
	50-50-25 mm		
H-Branch Joint	50mm standard port with inserts to suit cable OD.		

\*Inserts available to fit various cable ODs.



#### Push-Fit Fittings

Complete range available for tube connection, sealing, repair and entry into buildings.

- Straight connectors, reducers and end stops
- Water and gas blocking connectors



#### Tools

Specialised range to assist in the installation of the microtubes network including cutters for duct and microtubes, circumferential and longitudinal sheath strippers.



#### Outside Plant Hardware

We offer a range of home termination kits and splice boxes.



### Access Chambers

A range of modular, light weight and compact HDPE moulded chambers which offer simple installation in minimal time. Ideal for splice points, pulling or blowing points and break & branch customer connections.

#### Radbox® Chambers

A fully modular system comprising wall panels and corner pieces which fit together to provide a wide range of chamber sizes.

- EN124 Class B125
- Compact, lightweight, one stop installation

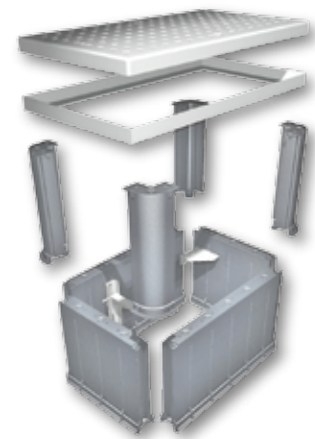
Single Panels
Width (mm)
450
600
725
900
1050

#### Width & Length

Any combination of standard wall panels up to 2.25m.

#### Depth

Any combination of 500mm and 150mm high panels up to 1.5m.



Radbox® is designed and manufactured by Radius Plastics Ltd

#### Quadbox® Chambers

A robust system of stackable segments allowing variable depth.

- Class B125 (Q1310 is Class B250)
- Easy fit "click in" steps and cable bearers

Item	Width (mm)	Length (mm)
Q300	300	300
Q600	600	450
Q725	725	255
Q915	915	445
Q1310	1310	610

Depth: any combination of 150mm panels



Quadbox® is designed and manufactured by Radius Plastics Ltd.

#### Frames & Covers

We offer a full range of concrete and ductile iron frames and covers to complement the Radbox® and Quadbox® chambers.

### Installation & Technical Support

In addition to system components, we offer a range of technical services through our team of specialised engineers.

- Design assistance
- Field and classroom training
- Coaching and supervision
- Small scale fibre installation



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