

## BENEFITS

**Save money:** fewer monitoring tools

**Save investment:** smooth transition from TDM to IP

**Simplify monitoring:** using IP probes only

**Maintain high Service Level Agreement:** reducing the overall number of devices and connections

## FEATURES

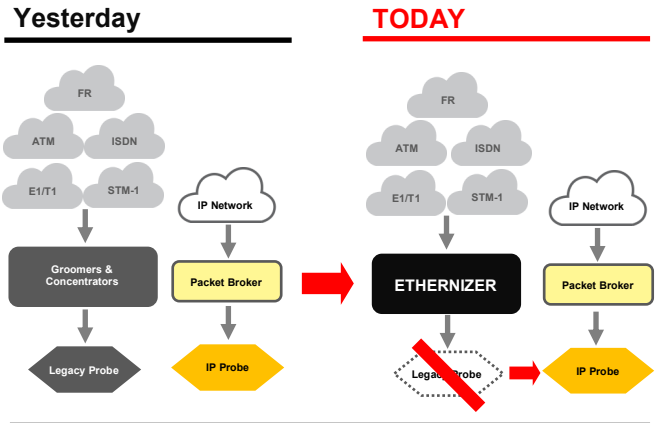
Ethernizer F-353 & F-352 series converts SS7 Signalling in Sigtran (M2UA) or Gb-over-FR to Gb-over-IP

Interfaces with TDM systems (E1/T1 HSL&LSL or STM-1 links) at physical level

Filters traffic, extracting only the part that needs monitoring

Performs legacy protocol translation to IP format, gives output messages to **1 Gbps interfaces** to connect to IP monitoring tools (IP probes)

## Ethernizer bridges the transition from TDM to IP



Falco F- 353 & F-352

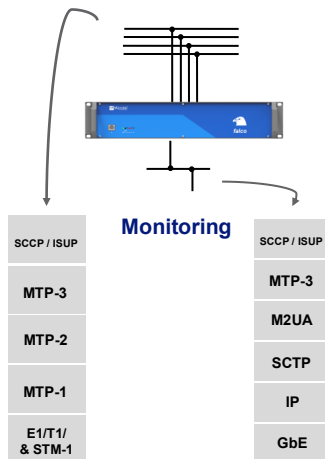
The spreading of Internet and of mobile phones has dramatically pushed up the demand for new broadband services, such as VOIP, video conferencing, chat, photos, videos and music download.

To deliver them efficiently, Telecom operators have been gradually replacing the traditional and reliable TDM (Time Division Multiplexing) infrastructure with IP-based components, which are significantly more cost-effective and versatile than their legacy TDM counterparts.

As this migration is not so fast and easy, due to technical and budget constraints, operators are currently handling a mixed architecture TDM & IP, both for links and monitoring probes.

Microtel's **Ethernizer** enables them to monitor the whole infrastructure using IP probes, saving money in future investment and optimizing the whole monitoring system.

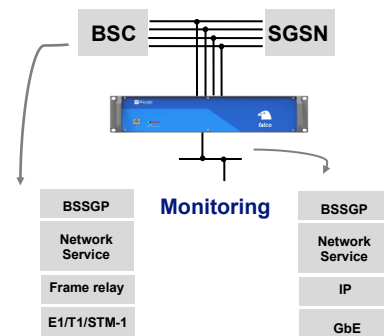
### F-353E/T/F SS7 Signalling on E1/T1/STM-1 links



Ethernizer's family presents the following models:

Model	Input Physical Interface	Output Physical Interface
F-353E/T	up to 128 E1/T1	2x1G Ethernet SS7 (HDLC or ATM) to SIGTRAN
F-352E/T	up to 128 E1/T1	2x1G Ethernet Gb-over-FR to Gb-over-IP
F-353F	up to 4 STM-1	2x1G Ethernet SS7 (HDLC or ATM) to SIGTRAN
F-352F	up to 4 STM-1	2x1G Ethernet Gb-over-FR to Gb-over-IP

### F-352E/T/F GB over FR to GB over IP



## Technical specifications

F-353E/T/F, F-352E/T/F front view



F-353E/T, F-352E/T rear view

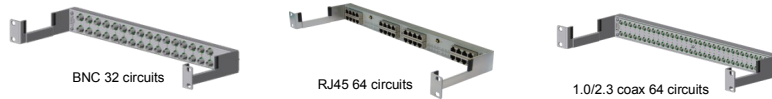


F-353F, F-352F rear view



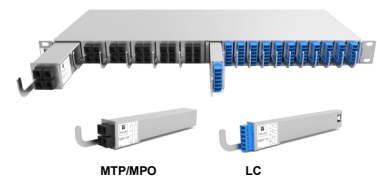
F-353E/T & F-352E/T can be connected to the E1/T1 lines through **Connector Panel** or **Resistor Panel** (which inserts 20 db attenuation), while **Microtel T-20 optical splitter** can be used to interface F-353F & F-352F to STM-1 links. All connectors, both input than output, are available on the rear.

3 models of Connector / Resistor Panels



75 ohm BNC connectors 32 circuits  
 120 ohm RJ45 connectors 64 circuits  
 75 ohm 1.0/2.3 coax connectors 64 circuits

T-20 optical splitter



Model	F-353E/T - F352E/T	F-353F - F352F
<b>Front view</b>		
1 power status and 5 alarm status leds	power led green: ON; alarm leds red: (device or single power supply or fan) failure	pwd led green:power ON; alarm leds red: (device or single power supply or fan) failure
Console port	1 RS-232 with RJ45 connector	1 RS-232 with RJ45 connector
<b>Rear view</b>		
Input ports	8 SCSI for max 128 E1/T1 input	8 SFP cages for max 4 singlemode STM-1 input
Output ports	2x1G Ethernet ports	2x1G Ethernet ports
Console port	1 RS-232 with RJ45 connector	1 RS-232 with RJ45 connector
Management/Network LAN port	1x10/100 Mbps with RJ45 connector	1x10/100 Mbps with RJ45 connector
ON/OFF switch	One for each power supply AC/DC (2)	One for each power supply AC/DC (2)
<b>Output transceiver type (SFP)</b>		
Copper (SFP)	1000 Base T	1000 Base T
Singlemode fiber (SFP)	1000 Base LX (1310 nm)	1000 Base LX (1310 nm)
Multimode fiber (SFP)	1000 Base SX (850 nm)	1000 Base SX (850 nm)
<b>Part number</b>		
Chassis equipped with: 64 E1 links (128 Rx) and 2x1G Ethernet rear ports	<b>F-353E-64E-2G; F-352E-64E-2G</b>	
Chassis equipped with: 128 E1 links (256 Rx) and 2x1G Ethernet rear ports	<b>F-353E-128E-2G; F-352E-128E-2G</b>	
Chassis equipped with: 64 T1 links (128 Rx) and 2x1G Ethernet rear ports	<b>F-353E-64T-2G; F-352E-64T-2G</b>	
Chassis equipped with: 128 T1 links (256 Rx) and 2x1G Ethernet rear ports	<b>F-353E-128T-2G; F-352E-128T-2G</b>	
Chassis equipped with: 4 STM-1 links and 2x1G Ethernet rear ports		<b>F-353F-4AS-2G; F-352F-4AS-2G</b>
Redundant power supply AC or DC	<b>PS-3/AC or PS-5/DC</b>	<b>PS-3/AC or PS-5/DC</b>

Management	Operating	Power	Dimensions
<ul style="list-style-type: none"> <li>Configuration GUI</li> <li>Management interface                             <ul style="list-style-type: none"> <li>1 Serial Control Port</li> <li>1 Ethernet LAN port</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Operating temperature: 0°C to 45°C</li> <li>Storage temperature: -20°C to 70 °C</li> <li>Relative humidity: up to 90% not condensing</li> </ul>	<ul style="list-style-type: none"> <li>110-220 Vac 50-60 Hz power module</li> <li>36-72 Vdc power module</li> <li>Default redundancy</li> <li>Max consumption: (fully equipped)150 W</li> </ul>	<ul style="list-style-type: none"> <li>Chassis 2U surface or 19" rack mount 482,6 mm W, 437 mm D, 88 mm H</li> <li>Weight: (fully equipped) 7 kg (15.4 lbs)</li> </ul>



**Registered Office & Headquartes**

Via Armentera, 8 38051 Borgo Valsugana (Trento) Italy P.IVA & C.F. 04703570285 R.E.A. TN 218119

**Branch Offices**

Trento Milano Padova Tel/Fax +39 0331 540608 info@microtelinnovation.com

**UK DISTRIBUTOR**

**TEST & MANAGEMENT DIAGNOSTIC SOLUTIONS**

**FRAME COMMUNICATIONS LTD**

7 Midshires Business Park  
Smeaton Close  
Aylesbury  
Bucks  
HP19 8HL  
UNITED KINGDOM

Tel: +44 (0) 1296 678510

Fax: +44 (0) 1296 436247

WEB: <http://www.frame.co.uk>

Email: [testinfo@frame.co.uk](mailto:testinfo@frame.co.uk)

