

## FIST-GPS2/3

### Fiber Management Splice/Patch and Patch/Patch Shelves

FIST-GPS shelves feature the FIST fiber management system and provide a platform for patching and splicing within a rack environment. The shelves house FIST splice and patch trays (FIST-GPST-12 or FIST-GPSTF-12). They mount in ETSI (FIST-GR3), 19- or 15-inch (FIST-GR3F) racks.

FIST-GPS2 shelves are used in ETSI and 19-inch frames. These shelves feature FIST-GPST 19-inch trays with adapter/retainers; trays are staggered for easy fiber routing and access to connectors, and are provided in sets of two trays.

FIST-GPS3 shelves feature FIST-GPST 15-inch trays without retainers; trays can be stacked directly on each other. FIST-GPS3 shelves are used in 15-inch frames.

### Features

- Patching, using patch cords, connectorized breakout or intrafacility cables
- Splicing loose tube cables, non-connectorized intrafacility or breakout cables to pigtails and patching these pigtails to patch cords
- Supports integration of passive optical splitters and wavelength division multiplexers
- Various connector/adaptor types possible
- Optional jumper overlength storage facility (for 19-inch shelves)
- Full patching capability on the tray and between trays in one shelf
- Use of connectorized cables allows repair of pigtails
- Easy identification of each fiber
- Available with various capacities and in different heights (44, 89, 125 and 175mm; please note, 44mm height is available only for 19-inch shelves)
- Kits available to attach cables at the side or back of shelf
- Wrap-around side panel and pigtail guide for easy re-patching (except in 44mm versions)
- Can be installed in CommScope's FIST racks and other 19-inch or metric (ETSI) rack sizes
  - FIST-GPS2 mount in ETSI and 19-inch frames
  - FIST-GPS3 mount in 15-inch frames
- Shelves are shipped with the maximum number of trays already installed.

# FIST-GPS2/3

## Fiber Management Splice/Patch and Patch/Patch Shelves

### Benefits of Tray Patching

- Clean: Both sides easily accessible for cleaning adapters
- Safe: Laser light oriented perpendicularly to the operator
- Accessible: Full front access at both sides of connection
- Visible: Patch cords do not hamper access or visibility of ports
- Reconnection to other positions in the same tray or shelf does not result in uncontrolled overlengths
- Bend controls guide and protect the pigtail cable and ensure controlled cable routing
- Manipulation of patch cords does not cause transient losses on other circuits
- Secure: Because of their position in the trays, connectors are better protected than in some front facing patch shelves
- Shelves are painted (powder-coated) in light grey (RAL 7035)
- Shelves are always ordered fully loaded.
- FIST-GPS2 shelves feature trays with adapters and retainers
- FIST-GPS3 shelves feature trays with adapters without retainers
- For a list of accessories, consumables and tools, please refer to the GPS2/3 accessories ordering guide

### Dimensions and Capacities

#### FIST-GPS2

##### 19"/ETSI rack mounting; mounting brackets for both mounting environments included in kit

Dimensions in mm			Maximum connection capacity	
			Without storage basket (Standard/small-form-factor connectors & adapters) <sup>1</sup>	With storage basket (Standard/small-form-factor connectors & adapters)
Height	Width	Depth		
175 (4HU)	485/535	280	96/192	72/144
125 (3HU)	485/535	280	72/144	48/96
89 (2HU)	485/535	280	48/96	24/48
44 (1HU)	485/535	280	24/48	12/24

#### FIST-GPS3

##### 15" rack mounting

Dimensions in mm			Maximum connection capacity (Standard/small-form-factor connectors & adapters)
Height	Width	Depth	
175 (4HU)	385	280	96/192
125 (3HU)	385	280	72/144
89 (2HU)	385	280	48/96

<sup>1</sup>Capacity for small-form-factor connector/adapters refers to 1.8mm pigtails

# FIST-GPS2/3

## Fiber Management Splice/Patch and Patch/Patch Shelves

### GPS2/3 Standard Kit Content

- Metal chassis with drawer
- Mounting brackets (ETSI/19" included)
- Drawer includes:
  - Bracket onto which trays can be mounted
  - 2 tray support wedges
  - Hook and loop strap to secure the trays
  - Bend control(s) at the patching side for some configurations
- Splice/patch versions include foam and tie-wraps to fix the cable elements (loose tubes, break-out cable, intra-facility subunits) onto the trays
- Trays which include:
  - Splice protector holder (SMOUV or ANT)
  - Splice protectors (only if SMOUV option is selected)
- One or two trumpets for guiding pigtails as they exit the shelf
- Metal front cover:
  - 175 mm high version: hingeable and removable cover
  - 125 mm high version: hingeable and removable cover
  - 89 mm high version: hingeable, fixed cover (GPS2); hingeable, removable cover (GPS3)
  - 44 mm high version: front cover is part of the drawer, not hingeable
- Identification cards and card holders (not for GPS2-L-version)
- Mounting screws and nuts
- Installation Instructions



ETSI mounting brackets (not shown) are also included

## FIST-GPS2: 19" and ETSI Rack Mounting

Patch only. No cable. FIST-GPST-1 2 trays

FIST-GPS2- \_\_\_ - AA \_\_\_ - \_\_\_

**Chassis type**

19" width	Height
K	1HU (44mm)
J	2HU (89mm)
I	3HU (125mm) <sup>(1)</sup>
L	4HU (175mm)

<sup>1</sup> Recommended shelf for FISTGR3 rack installations

**Number of trays**

		Height
2	2 trays	K
4	4 trays	J
6	6 trays	I
8	8 trays	L
S	Storage + 1 tray	K
U	Storage + 2 trays	J
T	Storage + 4 trays	I
V	Storage + 6 trays	L

**Adapter type**

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

**Items to be ordered separately:**

- Pigtails, patch cords, break-out and IFC (OCI, OCJ, OCIP)
- Group termination unit if non-connectorized breakout cable is to be used (FISTGTU2)

If other connector/adapter or cable styles are required, please contact your local CommScope sales representative.

### FIST-GPS2: 19" and ETSI Rack Mounting

Splice/Patch. No cable. FIST-GPST-12 trays

#### FIST-GPS2- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

#### Chassis type

19" width	Height
K	1HU (44mm)
J	2HU (89mm)
I	3HU (125mm) <sup>(1)</sup>
L	4HU (175mm)

<sup>1</sup> Recommended shelf for FIST-GR3 rack installations

#### Tray option

Standard adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Standard adapters; SMOUV splice protector; no fiber <sup>(3)</sup>	AE	EA
Standard adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AF	FA
Standard connector/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AI	IA
Standard connector/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AJ	JA
Small-form-factor adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Small-form-factor adapters; SMOUV splice protector <sup>(3)</sup> ; no fiber	AP	PA
Small-form-factor adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AQ	QA
Small-form-factor connectors/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AM	MA
Small-form-factor connectors/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AN	NA

<sup>2</sup> Patch cords or cables leave shelf to right; patch field to left of tray

<sup>3</sup> Patch cords or cables leave shelf to left; patch field to right of tray

<sup>4</sup> 45 mm SMOUV heat shrink splice protector

<sup>5</sup> ANT splice holder ONLY; splice protectors must be ordered separately

#### Number of trays

		Height
2	2 trays	K
4	4 trays	J
6	6 trays	I
8	8 trays	L
S	Storage + 1 tray	K
U	Storage + 2 trays	J
T	Storage + 4 trays	I
V	Storage + 6 trays	L

#### Connector/adaptor type

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

#### Items to be ordered separately:

- Fusion splice protectors (according to type of tray chosen)
- Pigtails, patch cords, breakout and IFC (OCI, OCJ, OCIP)
- Group termination unit if non-connectorized breakout cable is to be used (FIST-GTU2)

# FIST-GPS2/3

## Fiber Management Splice/Patch and Patch/Patch Shelves

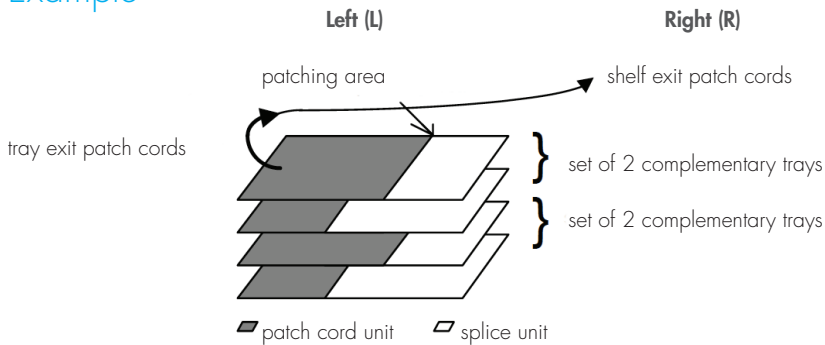
### FIST-GPST-12 trays

For use in 19" or ETSI shelves

FIST-GPST-12 trays used in FIST-GPS2 shelves are asymmetrical; the patching area is not located in the center of the tray but moved slightly to one side.

The patching areas of 2 consecutive trays should not fall on each other but alter. In general, all the patch cords of the trays within one shelf should leave the shelf at the same side.

#### Example

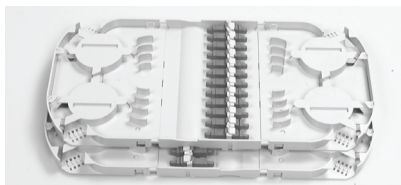


These trays use adapters with retainers.

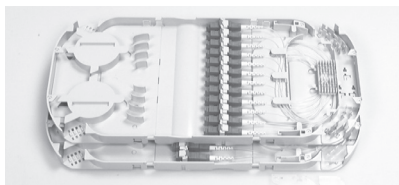
Trays are supplied in sets of two complementary pieces.

Standard kit content

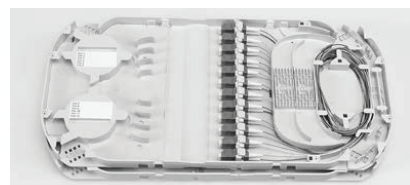
- Patch/patch configuration: tray with 2 patch units
- Splice/patch configuration:
  - 1 patch and 1 splice unit
  - Splice protector holder (SMOUV or ANT)
  - Splice protectors (if SMOUV option is selected)
  - Adapters, 900µ pigtails as per options selected
- GTU2 (group termination units for non-connectorized breakout cable applications) are ordered separately



Patch-only tray



Splice/patch tray with standard adapters and pigtails



Splice/patch tray with small-form-factor adapters and pigtails

# FIST-GPS2/3

Fiber Management Splice/Patch and Patch/Patch Shelves

## Trays for 19-inch Splice/Patch and Patch/Patch Shelves: No Cable Dimensions and Capacities

### FIST-GPST-12 (19-inch)

Dimensions in mm			Maximum connection capacity	
Height	Width	Depth	Standard connector/adapters	Small-form-factor connector/adapters
18	355	190	12	24

### Ordering Information

FIST-GPST-12- \_\_\_ - 2

#### Tray option

	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
<b>Standard adapters</b>		
Patch only; no splice protectors; no fiber	AA	AA
Splice/patch		
Standard adapters; SMOUV splice protector; no fiber <sup>(3)</sup>	AE	EA
Standard adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AF	FA
Standard connector/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AI	IA
Standard connector/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AJ	JA
<b>Small-form-factor adapters</b>		
Patch only; no splice protectors; no fiber	AA	AA
Splice/patch		
Small-form-factor adapters; SMOUV splice protector <sup>(3)</sup> ; no fiber	AP	PA
Small-form-factor adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AQ	QA
Small-form-factor connectors/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AM	MA
Small-form-factor connectors/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AN	NA

#### Adapter type

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

<sup>1</sup> Patch cords or cables leave shelf to right; patch field to left of tray

<sup>2</sup> Patch cords or cables leave shelf to left; patch field to right of tray

<sup>3</sup> 45 mm SMOUV heat shrink splice protector

<sup>4</sup> ANT splice holder ONLY; splice protectors must be ordered separately

# FIST-GPS2/3

Fiber Management Splice/Patch and Patch/Patch Shelves

## Trays for 19-inch Splice/Patch Shelves only with IFC (without strength member)

Dimensions and Capacities

### FIST-GPST-12 (19-inch)

Dimensions in mm			Maximum connection capacity	
Height	Width	Depth	Standard connector/adapters	Small-form-factor connector/adapters
18	355	190	12	24

### Ordering Information

FIST-GPST-12- \_\_\_ - \_\_\_ -2

#### Tray option

Standard adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Pre-cabled; SMOUV splice protector	AC	CA
Pre-cabled; ANT splice protector	AD	DA
Small-form-factor adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Pre-cabled; SMOUV splice protector <sup>(3)</sup> ; pre-fibered, including incoming cable stub	AC	CA
Pre-cabled; ANT splice protector <sup>(4)</sup> ; pre-fibered, including incoming cable stub	AD	DA

- <sup>1</sup> Patch cords or cables leave shelf to right; patch field to left of tray
- <sup>2</sup> Patch cords or cables leave shelf to left; patch field to right of tray
- <sup>3</sup> 45 mm SMOUV heat shrink splice protector
- <sup>4</sup> ANT splice holder ONLY; splice protectors must be ordered separately

#### Connector type

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

Trays ordered as set of 2. Each set contains 24 standard or 48 small-form-factor adapters.

#### Cable length (meters)

10...25	In increments of 5 meters
30...90	In increments of 10 meters

#### Cable construction and fiber description

IA	Standard 12-fiber IFC, without strength member
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Other cable constructions and cable lengths available; please contact your local CommScope sales representative.



## FIST-GPS3: 15" Rack Mounting

Patch only. No cable. FIST-GPSTF-1 2 trays

FIST-GPS3- \_\_\_ - AA \_\_\_ - \_\_\_

**Chassis type**

15" width	Height
R	2HU (89mm)
Q	3HU (125mm) <sup>1)</sup>
T	4HU (175mm)

<sup>1</sup> Recommended shelf for FIST-GR3F rack installations

**Number of trays**

Height		
4	4 trays	R
6	6 trays	Q
8	8 trays	T

**Adapter type**

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

**Items to be ordered separately:**

- Pigtails, patch cords, break-out and IFC (OCI, OCJ, OCIP)
- Group termination unit if non-connectorized breakout cable is to be used (FIST-GTU2))

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

## FIST-GPS3: 15" Rack Mounting

Splice/Patch. No cable. FIST-GPSTF-12 trays

### FIST-GPS3- - - - -

**Chassis type**

15" width	Height
R	2HU (89mm)
Q	3HU (125mm) <sup>(1)</sup>
T	4HU (175mm)

<sup>1</sup> Recommended shelf for FIST-GR3F rack installations

**Tray option**

Standard adapters	Right of shelf <sup>(2)</sup>	Left of shelf <sup>(3)</sup>
Standard adapters; SMOUV splice protector; no fiber <sup>(4)</sup>	AE	EA
Standard adapters; ANT splice holder <sup>(5)</sup> ; no fiber	AF	FA
Standard connector/adapters; with pigtails and SMOUV splice protector <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AI	IA
Standard connector/adapters; with pigtails and ANT splice holder <sup>(5)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AJ	JA
Small-form-factor adapters	Right of shelf <sup>(2)</sup>	Left of shelf <sup>(3)</sup>
Small-form-factor adapters; SMOUV splice protector <sup>(4)</sup> ; no fiber	AP	PA
Small-form-factor adapters; ANT splice holder <sup>(5)</sup> ; no fiber	AQ	QA
Small-form-factor connectors/adapters; with pigtails and SMOUV splice protector <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AM	MA
Small-form-factor connectors/adapters; with pigtails and ANT splice holder <sup>(5)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AN	NA

<sup>2</sup> Patch field to left of tray; patch cords or cables leave shelf to right

<sup>3</sup> Patch field to right of tray; patch cords or cables leave shelf to left

<sup>4</sup> 45 mm SMOUV heat shrink splice protector

<sup>5</sup> ANT splice holder ONLY; splice protectors must be ordered separately

**Number of trays**

	Height	
4	4 trays	R
6	6 trays	Q
8	8 trays	T

**Connector/adaptor type**

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

**Items to be ordered separately:**

- Fusion splice protectors (according to type of tray chosen)
- Pigtails, patch cords, breakout and IFC (OCI, OCJ, OCIP)
- Group termination unit if non-connectorized breakout cable is to be used (FIST-GTU2)

## Trays for 15-inch Splice/Patch and Patch/Patch Shelves: No Cable FIST-GPSTF-12 (15-inch)

Dimensions in mm			Maximum connection capacity	
Height	Width	Depth	Standard connector/adapters	Small-form-factor connector/adapters
18	315	190	12	24

### Ordering Information

FIST-GPSTF-12- \_\_\_ - 2

**Tray option**

Standard adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Patch only; no splice protectors; no fiber	AA	AA
Splice/patch		
Standard adapters; SMOUV splice protector; no fiber <sup>(3)</sup>	AE	EA
Standard adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AF	FA
Standard connector/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AI	IA
Standard connector/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AJ	JA
Small-form-factor adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Patch only; no splice protectors; no fiber	AA	AA
Splice/patch		
Small-form-factor adapters; SMOUV splice protector <sup>(3)</sup> ; no fiber	AP	PA
Small-form-factor adapters; ANT splice holder <sup>(4)</sup> ; no fiber	AQ	QA
Small-form-factor connectors/adapters; with pigtails and SMOUV splice protector <sup>(3)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AM	MA
Small-form-factor connectors/adapters; with pigtails and ANT splice holder <sup>(4)</sup> ; fiber from adapters to splice holder, ready for incoming cable	AN	NA

**Adapter type**

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

<sup>1</sup> Patch cords or cables leave shelf to right; patch field to left of tray

<sup>2</sup> Patch cords or cables leave shelf to left; patch field to right of tray

<sup>3</sup> 45 mm SMOUV heat shrink splice protector

<sup>4</sup> ANT splice holder ONLY; splice protectors must be ordered separately

Trays ordered as set of 2. Each set contains 24 standard or 48 smallform-factor adapters.

For more technical options and order quantity information, please consult the product ordering guide or your local sales representative.

# FIST-GPS2/3

Fiber Management Splice/Patch and Patch/Patch Shelves

## Trays for 1.5-inch Splice/Patch Shelves only: with IFC or OSP Cable

### FIST-GPSTF-12 (1.5-inch)

Dimensions in mm			Maximum connection capacity	
Height	Width	Depth	Standard connector/adapters	Small-form-factor connector/adapters
18	315	190	12	24

### Ordering Information

## FIST-GPST-12- \_\_\_\_\_ - \_\_\_\_\_ -2

#### Tray option

Tray option	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Standard adapters		
Pre-cabled; SMOUV splice protector	AC	CA
Pre-cabled; ANT splice protector	AD	DA
Small-form-factor adapters	Right of shelf <sup>(1)</sup>	Left of shelf <sup>(2)</sup>
Pre-cabled; SMOUV splice protector <sup>(3)</sup> ; pre-fibered, including incoming cable stub	AC	CA
Pre-cabled; ANT splice protector <sup>(4)</sup> ; pre-fibered, including incoming cable stub	AD	DA

<sup>1</sup> Patch cords or cables leave shelf to right; patch field to left of tray

<sup>2</sup> Patch cords or cables leave shelf to left; patch field to right of tray

<sup>3</sup> 45 mm SMOUV heat shrink splice protector

<sup>4</sup> ANT splice holder ONLY; splice protectors must be ordered separately

#### Connector type

S1	SC/UPC
S2	SC/APC 8°
S3	SC/APC 9°
L1	LC/UPC
L2	LC/APC
E9	E2000 8°

If other connector/adaptor or cable styles are required, please contact your local CommScope sales representative.

Trays ordered as set of 2. Each set contains 24 standard or 48 small-form-factor adapters.

For more technical options and order quantity information, please consult the product ordering guide or your local sales representative.

#### Cable length (meters)

10...25	In increments of 5 meters
30...90	In increments of 10 meters

#### Cable construction and fiber description

IA	Standard 12-fiber IFC, without strength member
OD	24-fiber outside plant cable
OF	48-fiber outside plant cable
OH	96-fiber outside plant cable

Other cable constructions and cable lengths available; please contact your local CommScope sales representative.



[www.commscope.com](http://www.commscope.com)

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