

### HE series

# Headend signal control system

HE product line includes combiners, splitters, directional couplers, diplex filters and a separate module for attenuation & slope addition. 24 Modules per sub-rack (3U high, standard 19" rack installation).



#### Features

- High density, 24 modules per sub-rack (3U)
- Double density possible with back-to-back installation, 48 modules per 3U
- Fits standard 19" racks and sub-racks (3U)
- Frequency range up to 1 GHz
- High isolation between ports
- Excellent flatness
- F-female input and output connectors
- Optional 20 dB test point and insertion point, several connector type options
- Cenelec class A screening, typical > 100 dB



#### **HECS4WB-TPIP**

## Headend signal control system

The current headends are a crossroad of signals, requiring proper routing solutions to combine analogue and digital broadcast, narrowcast VOD as well as DOCSIS 3 and telemetry services. All these different signal sources need to be combined, controlled, adjusted and split up, to fit into the distribution network.

### Flexible solution

The Teleste HE Series product line offers a flexible solution for combining and splitting narrowcast and broadcast signals at head-ends and HUB's. The high-end specifications reduce the need of active components, resulting in a very high MTBF of the complete system. Although not limited to the HDO products, it is a cost effective and efficient addition to the HDO amplifiers, optical receivers and emitters, etc.

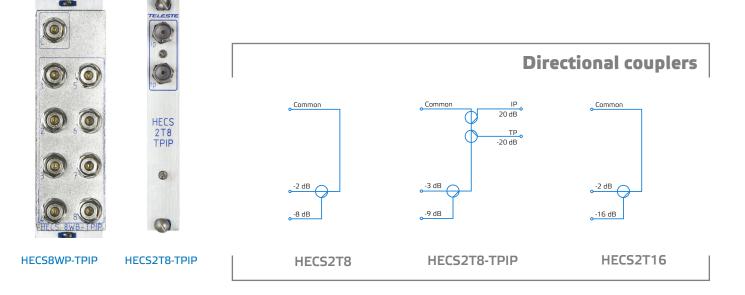
### Density and scalability

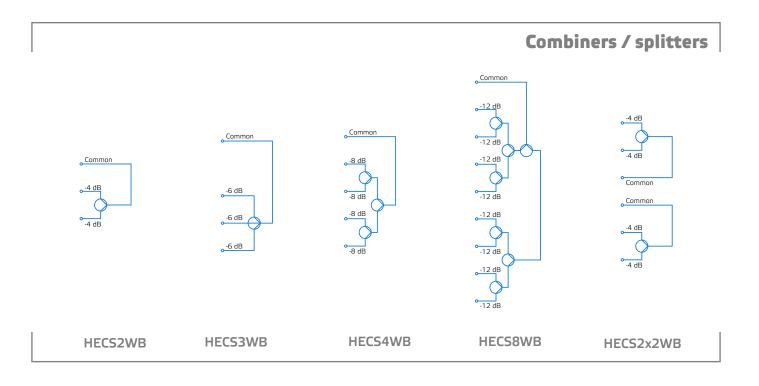
The high density and scalability of the HE Series makes it an excellent and affordable investment. More modules can easily be added to the existing sub-racks. A system can be designed to start with modest levels of complexity and by properly choosing the modules and their placement, scaling up to higher loads is easy.

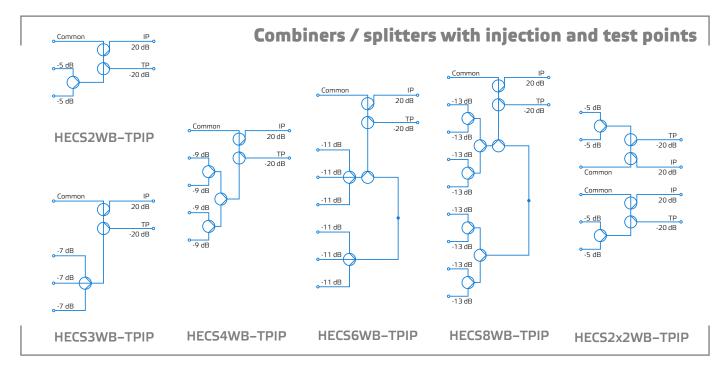
### Product line

The HE product line includes combiners, splitters, directional couplers and diplex filters. Most modules have optional test- and injection points, enabling quick trouble shooting but also prolonged logging and monitoring, in two directions, with minimal insertion loss. Additional modules can be added to the series on request.

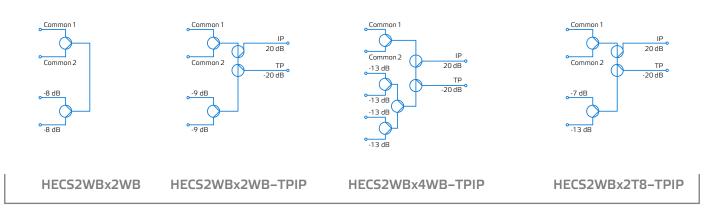
The modules in the HE Series are 3U high and fit into standard 19" sub-racks. One sub-rack takes 24 single modules or 12 double modules (6-way combiner and higher). There are also two specially designed 19" sub-racks available within the HE Series. The minimal depth of the modules enables the routing to be done in the back of the rack, optimizing rack space.











### Technical specifications

HECS	MODL	
TILCO	MODU	ノニニン

Return loss		General	
515 MHz	16 dB	Connectors, in/out	F female
1540 MHz	18 dB	Connectors, insertion/tp	BNC, F or IEC optional
401006 MHz	20 dB @ 40 MHz, -1.5 dB /oct	Operating temperature	0+55°C
Port-to-port isolation		EMC compatibility	IEC 60728-2, Class A
515 MHz	25 dB	Overvoltage protection	1 kV
15600 MHz	30 dB	Dimensions (h x w x d) $^{1)}$	111 mm x 17 mm x 65 mm
600862 MHz	25 dB	(h x w x d) <sup>2)</sup>	111 mm x 35 mm x 65 mm
6001006 MHz	22 dB	Weight <sup>1)</sup>	0.26 kg
Flatness (typical)		2)	0.45 kg
515 MHz	1.3 dB		
15862 MHz	1.1 dB	Notes	
8621006 MHz	1.3 dB	<sup>1)</sup> 2/3/4WB, 2x2WB, 2/3/4W	B-TPIP, 2T8, 2T8-TPIP, 2T16, HEDX65/88
		2WBx2WB, 2WBx2WB-TPI	P, 2WBx2T8-TPIP, HECS2x2WB-TPIP

<sup>2)</sup> 8WB, 6/8WB-TPIP, 2WBx4WB-TPIP

HERK RACKS

HERK3UD

HERK3U			
Module placement / single modules	24	Material	Anodized aluminium
Module placement / double modules	12	Dimensions (h x w d)	132.5 mm x 482.6 mm x 40 mm
HERK3UD			
Module placement / single modules	24	Material	Anodized aluminium
Module placement / double modules	12	Dimensions (h x w d)	132.5 mm x 482.6 mm x 71 mm

Combiners / Splitters				
HECS2WB	2-way splitter			
HECS3WB	3-way splitter			
HECS4WB	4-way splitter			
HECS8WB	8-way splitter			
HECS2x2WB	Dual 2-way splitter			
Combiners / Splitters with injection and test point				
HECS2WB-TPIP	2-way splitter with TP&IP			
HECS3WB-TPIP	3-way splitter with TP&IP			
HECS4WB-TPIP	4-way splitter with TP&IP			
HECS6WB-TPIP	6-way splitter with TP&IP			
HECS8WB-TPIP	8-way splitter with TP&IP			
HECS2x2WB-TPIP	Dual 2-way splitter with TP&IP			
Directional couplers				
HECS2T8	Directional coupler, 8 dB			
HECS2T8-TPIP	Directional coupler, 8 dB with TP&IP			
HECS2T16	Directional coupler 16 dB			
Dual input combiners / Splitters/ Directional couplers				
HECS2WBx2WB	Dual input 2-way splitter			
HECS2WBx2WB-TPIP	Dual input 2-way splitter with TP&IP			
HECS2WBx4WB-TPIP	Dual input 4-way splitter with TP&IP			
HECS2WBx2T8-TPIP	Dual input dir. coupler 8 dB with TP&IP			
Diplex filters				
HEDX65/88	Diplex filter 65 / 88 MHz split			
Sub-racks 19"				
HERK3U	Sub-rack, depth 40 mm , height 3U			

Sub-rack, depth 71 mm, height 3U