



Un- Wire Your Digital World

# sDAS Head End Unit

## Overview

sDAS series is TSI's Distribution Antenna System. The sDAS offers the industry leading and most innovative technology to help mobile operator extend the RF signal coverage into any indoor environment from small to large scale. Indoor network becomes manageable services and new business model.



A sDAS system includes the HEU and RAU. The HEU can take RF signal from any source like Macro/Pico/Femto/Repeater/Small Cell and transport the signal to RAUs in different locations via single fiber. Single HEU can convert and transport the RF signal to max six RAUs within 6km distance. Both star and daisy chain topology are supported

## Key Features

- Source/Technology independent
- Single fiber for MIMO
- Star & Daisy chain hybrid topology
- Optics/RF Auto-calibration
- Single-band multi-operator support
- Environment sensing
- RoHS compliant

## Applications

- Indoor coverage
- Tunnel coverage
- Rural area signal extension
- Shadow area signal enhancement

### TranSystem. Inc.

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## Specification

HEU		
RF Interface	Frequency Range	Refer to Table HEU
	BTS Antenna Interface	N Type Female x 2, support multiple BTS inputs up to 4 LTE BTS per port
	RF1	RF1 signal from BTS
	RF2	RF2 signal from BTS
	Input Power Range	+10 ~ +30 dBm per port
	Power Overload Protection	Shut down downlink path when RF input power > +35dBm per port
	Input Return Loss	$\geq 14$ dB
Fiber Interface	Fiber Connector	SC/APC x 2, each fiber interface supports up to 3ea RAUs in daisy chain configuration
	Wavelength	Downlink : 1550nm Uplink : 1310nm
	Laser O/P Power	5.5dBm typical. 4dBm minimum
	Optical RX Sensitivity	-8.5dBm
Power, Control and Monitoring	Interface	10/100 BaseT, RJ45 connector
	Power Input	802.3at
	DC Input Range	+36 ~ +58 VDC
	Power Consumption	12W
Environmental	Operating Temp Range	0 ~ +45 °C
Dimensions & Weight	Dimensions	218 (L) x 146(W) x 42(H) mm
	Weight	1.4 Kg
Mounting		Standard 1U rack mount interface
<b>HEU LED</b>	<b>Color</b>	<b>Description</b>
Power	Green	Power on
	Red	HEU system DC abnormal
HEU	Green	Normal mode
	Flash Green	1. Calibration mode, or 2. Environment sensing mode, or 3. Firmware upgrade
	Red	Failure alarm
RF1/RF2	Green	RF signal detected
	Dark	No RF signal
RAU1/2/3	Green	RAU has been provisioned and calibrated
	Flash Green	RAU has been provisioned but is standby for calibration or under diagnostic test or firmware upgrade
	Red	RAU connection failed after provisioned
	Dark	RAU doesn't provision yet

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Table HEU

Band	Duplex Mode	Frequency		Model No. / Option
1	FDD	Uplink	1920 ~ 1980MHz	HEU-01_01
		Downlink	2110 ~ 2170MHz	
2	FDD	Uplink	1850 ~ 1910MHz	HEU-02_01
		Downlink	1930 ~ 1990MHz	
3	FDD	Uplink	1710 ~ 1785MHz	HEU-03_01
		Downlink	1805 ~ 1880MHz	
4	FDD	Uplink	1710 ~ 1755MHz	HEU-04_01
		Downlink	2110 ~ 2155MHz	
17	FDD	Uplink	704 ~ 716MHz	HEU-17_01
		Downlink	734 ~ 746MHz	
28	FDD	Uplink	703 ~ 748MHz	HEU-28_01
		Downlink	758 ~ 803MHz	
40	TDD		2300 ~ 2400MHz	HEU-40_01
41	TDD		2496 ~ 2690MHz	HEU-41_01

Specifications are subject to  
change without prior notice.

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