



Un- Wire Your Digital World

sDAS Remote Access Unit

Overview

sDAS series is TSI's Distribution Antenna System. The sDAS offers the industry leading and most innovative technology to help mobile operator to 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.

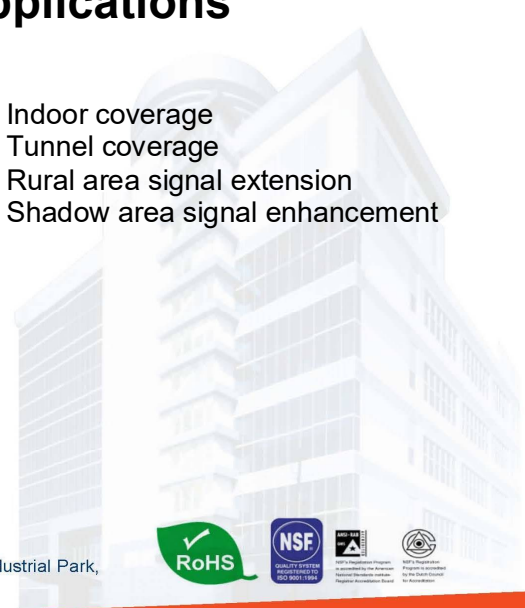
RAU is the remote antenna unit which extends the RF signal through a fiber. RAU installation can be ceiling, pole or wall mounted with build-in or external antenna options.

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

Applications

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



TranSystem. Inc.

Tel: + 886-3-578-0393 Fax: + 886-3-578-4111
Inquiries: sales@transystem.com.tw

Address: No. 1-2, Li-Hsin Rd I, Science-Based Industrial Park,
Hsinchu, Taiwan, R.O.C.
Web site: <http://www.transystem.com.tw>





Specification

RAU		
Radio Interface	Frequency Range	Refer to Table RAU
	Omni Antenna Gain	4dBi frequency > 1700MHz, 0dBi frequency < 1000MHz
	Panel Antenna Gain	9dBi *only available for frequency > 1700MHz
	NC type (optional)	N type (F) connector x 2
	Downlink Output Power	FDD : +12 ~ +18 dBm per port, 1dB/step. +18 dBm per port power supports 64QAM 5/6 OFDM at 4% EVM
		TDD : +14 ~ +20dBm per port, 1dB/step. +20 dBm per port power supports 64QAM 5/6 OFDM at 4% EVM
Uplink Noise Figure	6dB max. at max. UL gain	
Fiber Interface	Fiber Connector	SC/APC x 2
	Built-in Optical Tapper	Tapped 20%, Through 80%
	Wavelength Allocation	Downlink : 1550nm , Uplink : 1310nm
	Laser O/P Power	-1dBm typical, -2.5dBm minimum
	Optical RX Sensitivity	-2dBm
Power Supply	Power input	802.3at – B type Compatible
	DC Input Range	+36 ~ +58 VDC
	Power Consumption	20W Max.
Environmental	Operating Temp Range	0 ~ +45 °C
Dimensions & Weight	Dimensions	230 (L) x 142 (W) x 80 (H) mm
	Weight	1.4 Kg
Mounting		Wall Mount or Pole Mount
RAU LED	Color	Description
PWR	Green	Power on
	Red	RAU system DC abnormal
Fiber	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
	Dark	Low optical power

TranSystem. Inc.

Tel: + 886-3-578-0393 Fax: + 886-3-578-4111
Inquiries: sales@transystem.com.tw

Address: No. 1-2, Li-Hsin Rd I, Science-Based Industrial Park,
Hsinchu, Taiwan, R.O.C.
Web site: <http://www.transystem.com.tw>





System Function and Features		
Initialization and Configuration	RF Power & Frequency	Based on BTS input power level set optimal HEU RF operating point
	RAU Serial Number	S/N display on GUI after RAU topology set
	Fiber Connection Loss	Display on GUI after RAU topology set
	Downlink Path Diagnosis & Calibration	RAU output power default: +18dBm per port, +21dBm total
	Uplink Path Calibration	Default: 0dB gain from RAU antenna port to HEU RF port
Normal Operation Mode	Uplink Path Gain	-15 ~ +15 dB, 1dB/step. Default : 0dB
	RAU Link Parameter Monitoring	Downlink output power : aggregated total power
		Uplink RSSI: 15MHz bandwidth for each selectable channel, center frequency 5 MHz/step
		Fiber loss display
HEU Link Parameter Monitoring	RF1/RF2, D/L input power level from BS, 15MHz bandwidth for each selectable channel, center frequency 5 MHz/step	
Environment Sensing		Uplink
Certification		CE/FCC

Table RAU

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

OA : OMNI antenna , PA : Panel antenna, NC : N-type connector

Specifications are subject to change without prior notice.

TranSystem. Inc.

Tel: + 886-3-578-0393 Fax: + 886-3-578-4111
Inquiries: sales@transystem.com.tw

Address: No. 1-2, Li-Hsin Rd I, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
Web site: <http://www.transystem.com.tw>

