

# DAS Interface Tray

Tel: 201-342-3338

Fax: 201-342-3339

www.cciproducts.com

## General Information



CCI's Cellular and PCS Band DAS Interface Trays provides an integrated,

- ▶ Model DAST-850
- ▶ Model DAST-1900

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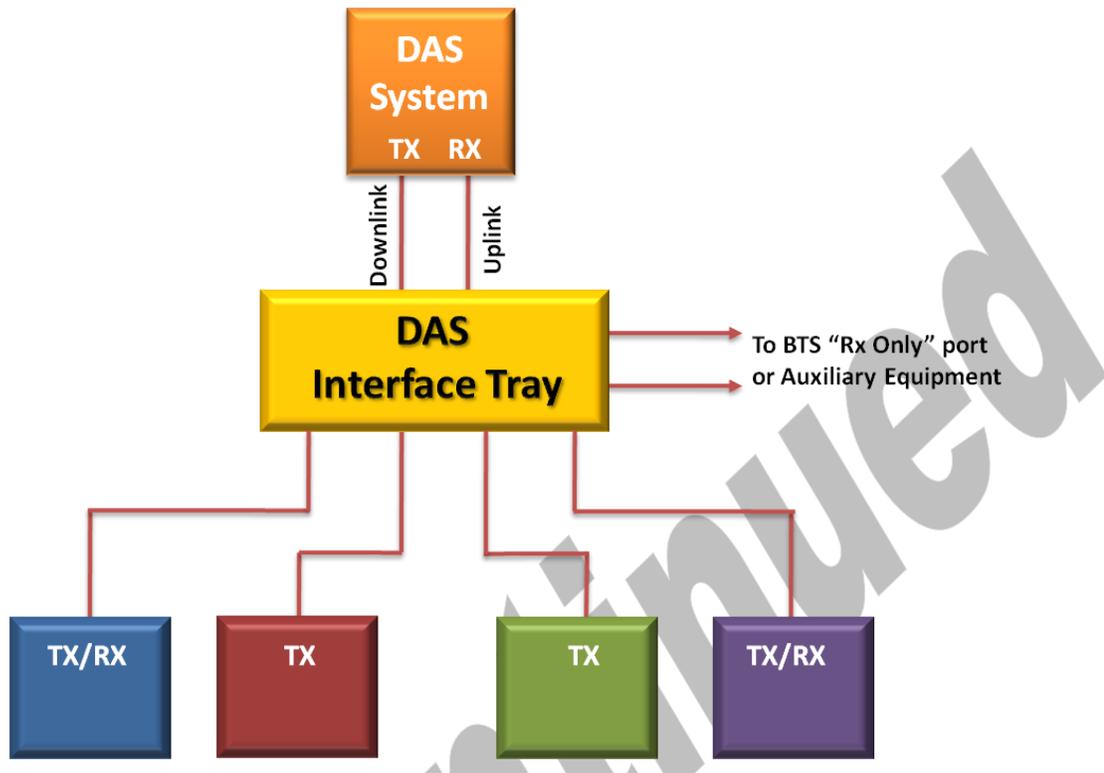
convenient, and single connection point when using multiple base stations with a common DAS system. The unique architecture of the CCI DAS Interface Tray can simultaneously accommodate up to two TX/Rx inputs and two Tx Only inputs from single or multiple base stations. Also provided are extra Rx connections for Rx Only BTS ports, LMU connection or signal monitoring. Integrated leveling controls are provided in both the uplink and downlink path in order to achieve the proper link balance to the DAS system for each base station channel.

Base stations are connected directly to the DAS Interface Tray without the need to attenuate power as the DAS tray provides integrated high power attenuation for each channel with an adjustment range of 30 dB with 1 dB increments. The DAS Tray is a completely passive assembly with no external power requirement thus providing the highest reliability and convenient installation. High rejection, low PIM Duplexer filters are utilized in this design. Available with an optional Duplexed connection to DAS, optional SMA connectors, and optional non-duplexed Input connection from BTS is available.

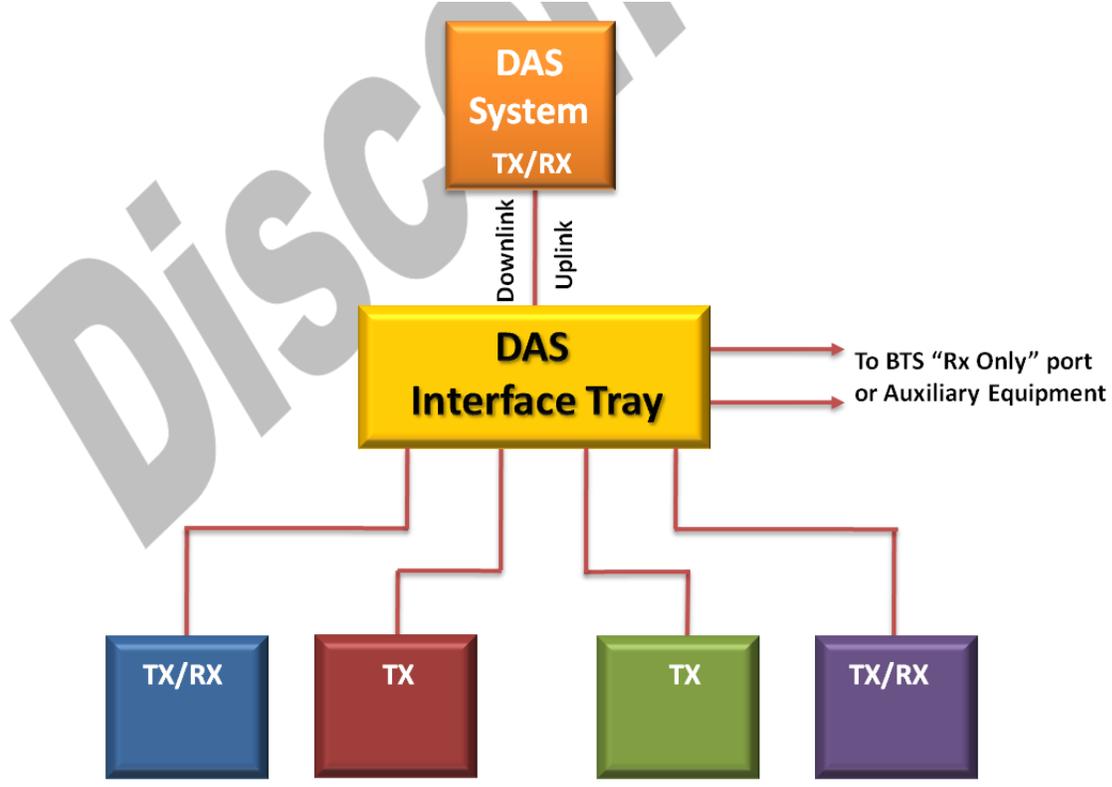
## Key Features:

- ◆ Allows for a common connection point to a DAS system for multiple BTSs, multiple platforms and multiple spectrums.
- ◆ Easy optimization features including separate Uplink and Downlink control
- ◆ Flexible design and configuration options.
- ◆ High Rejection Duplexer Filters
- ◆ Two additional Rx connections provided for Rx Only BTS ports, E911 & Uplink Monitoring
- ◆ Allows operator to have easy access to DAS system connections for easy optimization, troubleshooting and maintenance
- ◆ 2U high - 19" Rack Mounted Tray
- ◆ Supplied with two (2) 30 foot QMA-Male to N-Male Cables or SMA-Male to N-Male Cables (dependent on DAS connectors used on the ordered DAS Interface Tray)

### DAS Tray Simplified Block Diagram with Simplex Connection to DAS



### DAS Tray Simplified Block Diagram with Duplex Connection to DAS



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## DAS Interface Tray with 20 dB Fixed Attenuator Typical Specifications

Description	Typical Specifications
<b>RF Electrical</b>	
Operating Frequency Range	Full Cellular Band (DAST-850)
	Full PCS Band (DAST-1900)
Return Loss	18 dB Typ. all ports
Insertion Loss	
Transmit Passband	
TX/RX to TX OUT	27 to 57 dB, adjustable in 1 dB steps <b>(20 dB Fixed Att)</b>
TX/RX to TX OUT <b>(Duplexed DAS Connection )</b>	30 to 60 dB, adjustable in 1 dB steps <b>(20 dB Fixed Att)</b>
Receive Passband	
RX IN to TX/RX	7 to 17 dB, adjustable in 1 dB steps
RX IN to RX	7 to 17 dB, adjustable in 1 dB steps
RX IN to TX/RX <b>(Duplexed DAS Connection )</b>	10 to 20 dB, adjustable in 1 dB steps
RX IN to RX <b>(Duplexed DAS Connection )</b>	10 to 20 dB, adjustable in 1 dB steps
Filter Characteristics	
Transmit Isolation	
TX/RX to RX IN	69 dB plus variable attenuator setting
TX/RX to adjacent TX/RX	79 dB
TX/RX to RX	79 dB
Continuous Average Power	60 Watts Max. at TX/RX port
Peak Envelope Power	2KW Max.
Intermodulation Performance	
IMD at ANT port in Rx Band	-118 dBm typical (2 tones at +43 dBm)
<b>Mechanical</b>	
RX IN (from DAS) Connections	RX IN - 1 x QMA-Female
TX OUT (to DAS) Connections	TX OUT - 1 x QMA-Female
RX OUT (to LMU) Connections	RX Output - 2 x QMA-Female
TX/RX IN, TX IN (from BTS) Connections	TX/RX IN - 2 x 7/16 DIN-Female, TX IN - 2 x 7/16 DIN-Female
Mounting	Front Panel; Center Brackets for 19" 2 post rack mntg
Dimensions	3.5" (2U) H x 19" W x 18" D Rack Mount Tray
Weight	30 Pounds
<b>Environmental</b>	
Operating Temperature Range	0° C to +55° C
MTBF	> 500,000 hours

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## DAS Interface Tray with 6 dB Fixed Attenuator Typical Specifications

Description	Typical Specifications
<b>RF Electrical</b>	
Operating Frequency Range	Full Cellular Band (DAST-850)
	Full PCS Band (DAST-1900)
Return Loss	18 dB Typ. all ports
Insertion Loss	
Transmit Passband	
TX/RX to TX OUT	13 to 43 dB, adjustable in 1 dB steps ( <b>6 dB Fixed Att</b> )
Receive Passband	
RX IN to TX/RX	7 to 17 dB, adjustable in 1 dB steps
RX IN to RX	7 to 17 dB, adjustable in 1 dB steps
Filter Characteristics	
Transmit Isolation	
TX/RX to RX IN	69 dB plus variable attenuator setting
TX/RX to adjacent TX/RX	79 dB
TX/RX to RX	79 dB
Continuous Average Power	60 Watts Max. at TX/RX port
Peak Envelope Power	2KW Max.
Intermodulation Performance	
IMD at ANT port in Rx Band	-118 dBm typical (2 tones at +43 dBm)
<b>Mechanical</b>	
RX IN (from DAS) Connections	RX IN - 1 x QMA-Female
TX OUT (to DAS) Connections	TX OUT - 1 x QMA-Female
RX OUT (to LMU) Connections	RX Output - 2 x QMA-Female
TX/RX IN, TX IN (from BTS) Connections	TX/RX IN - 2 x 7/16 DIN-Female, TX IN - 2 x 7/16 DIN-Female
Mounting	Front Panel; Center Brackets for 19" 2 post rack mntg
Dimensions	3.5" (2U) H x 19" W x 18" D Rack Mount Tray
Weight	30 Pounds
<b>Environmental</b>	
Operating Temperature Range	0° C to +55° C
MTBF	> 500,000 hours

All specifications are subject to change. The latest specifications are available at [www.cciproducts.com](http://www.cciproducts.com)

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## DAS Interface Tray with 0 dB Fixed Attenuator Typical Specifications

Description	Typical Specifications
<b>RF Electrical</b>	
Operating Frequency Range	Full Cellular Band (DAST-850)
	Full PCS Band (DAST-1900)
Return Loss	18 dB Min. all ports
Insertion Loss	
Transmit Passband	
TX/RX to TX OUT	7 dB ( <b>0 dB Fixed Att</b> )
Receive Passband	
RX IN to TX/RX	7 to 17 dB, adjustable in 1 dB steps
RX IN to RX	7 to 17 dB, adjustable in 1 dB steps
Filter Characteristics	
Transmit Isolation	
TX/RX to RX IN	69 dB plus variable attenuator setting
TX/RX to adjacent TX/RX	79 dB
TX/RX to RX	79 dB
Continuous Average Power	60 Watts Max. at TX/RX port
Peak Envelope Power	2KW Max.
Intermodulation Performance	
IMD at ANT port in Rx Band	-118 dBm typical (2 tones at +43 dBm)
<b>Mechanical</b>	
RX IN (from DAS) Connections	RX IN - 1 x QMA-Female
TX OUT (to DAS) Connections	TX OUT - 1 x QMA-Female
RX OUT (to LMU) Connections	RX Output - 2 x QMA-Female
TX/RX IN, TX IN (from BTS) Connections	TX/RX IN - 2 x 7/16 DIN-Female, TX IN - 2 x 7/16 DIN-Female
Mounting	Front Panel; Center Brackets for 19" 2 post rack mntg
Dimensions	3.5" (2U) H x 19" W x 18" D Rack Mount Tray
Weight	30 Pounds
<b>Environmental</b>	
Operating Temperature Range	0° C to +55° C
MTBF	> 500,000 hours

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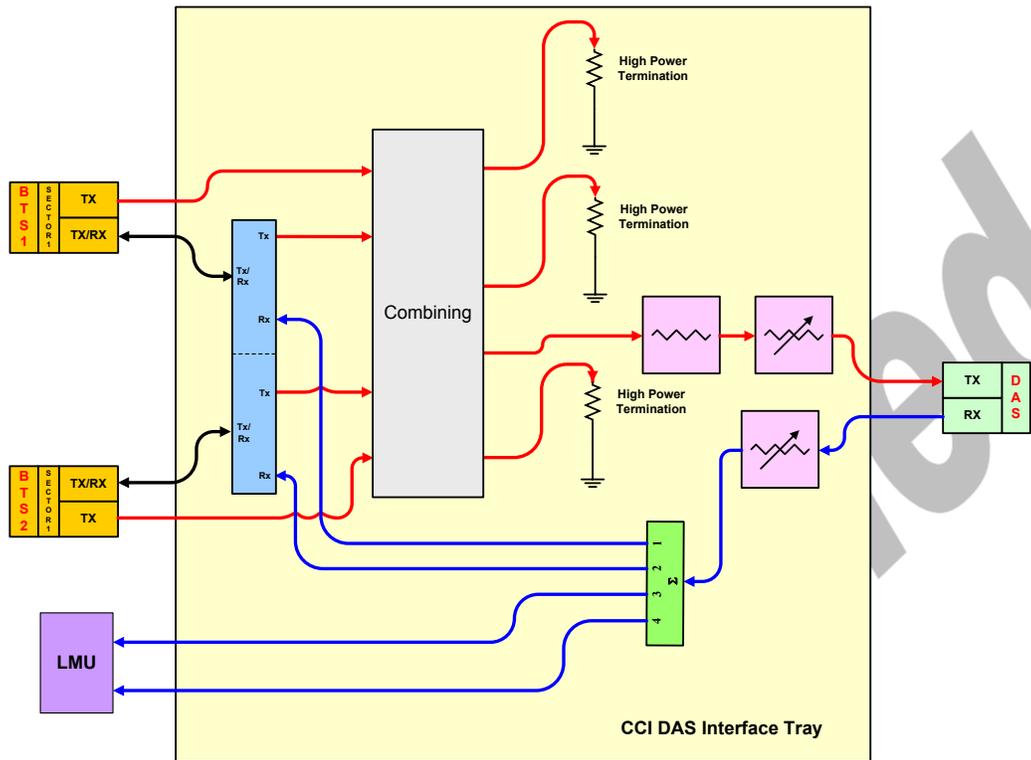
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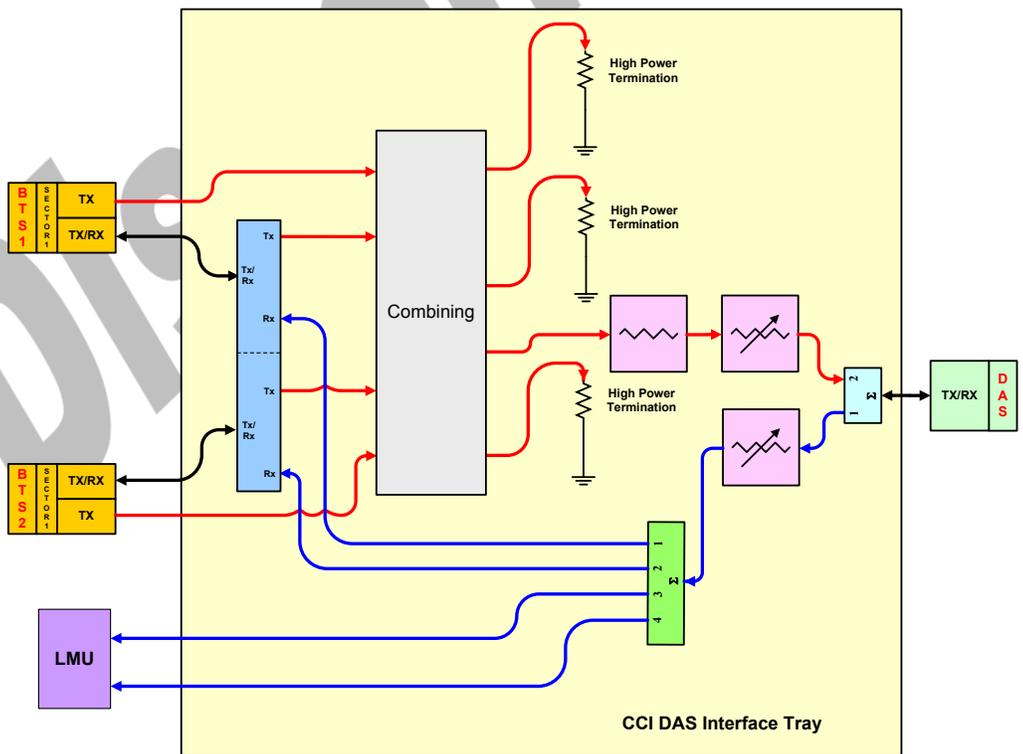
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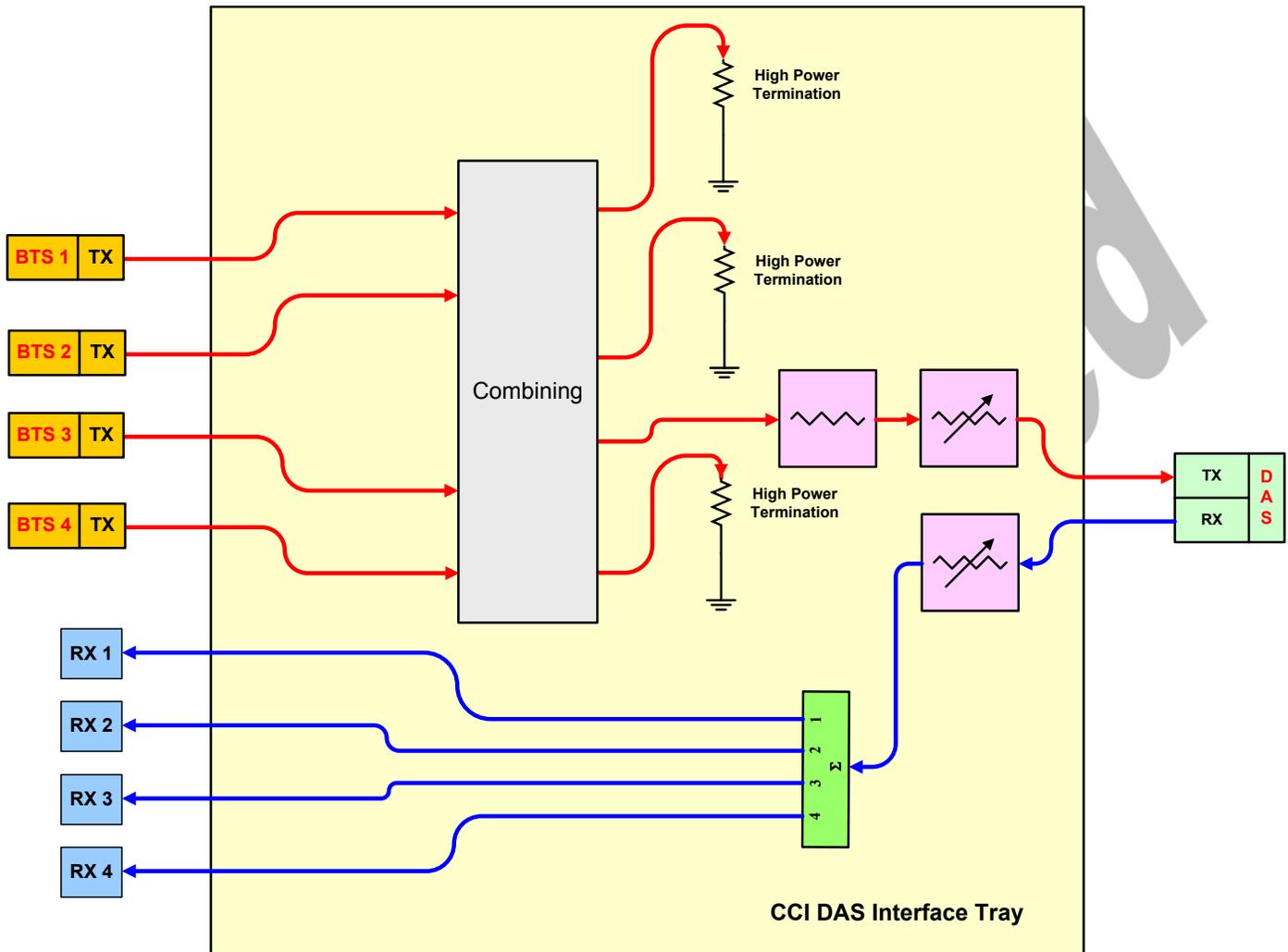
### DAS Interface Tray (Simplex Connection to DAS) Block Diagram



### DAS Interface Tray (Duplex Connection to DAS) Block Diagram



## DAS Interface Tray (Non-Duplexed BTS Connection) Block Diagram



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## Applicable Model #'s:

- ◆ DAST-850  
(850 / QMA / Simplex DAS Connection)
- ◆ DAST-850-DPX-1  
(850 / QMA / Duplex DAS Connection)
- ◆ DAST-850-SM  
(850 / SMA / Simplex DAS Connection)
- ◆ DAST-850-DPX-1-SM  
(850 / SMA / Duplex DAS Connection)
- ◆ DAST-850-0dB  
(850 / QMA / Simplex DAS Connection / No High Power or Tx Variable Attenuator)
- ◆ DAST-850-SM-0dB  
(850 / SMA / Simplex DAS Connection / No High Power or Tx Variable Attenuator)
- ◆ DAST-850-6dB  
(850 / QMA / Simplex DAS Connection / 6 dB High Power Attenuator)
- ◆ DAST-850-SM-6dB  
(850 / SMA / Simplex DAS Connection / 6 dB High Power Attenuator)
- ◆ DAST-850-NDPX  
(850 / QMA / No Input Duplexer / Simplex DAS Connection)
- ◆ DAST-850-NDPX-SM  
(850 / QMA / No Input Duplexer / Simplex DAS Connection)
- ◆ DAST-1900  
(1900 / QMA / Simplex DAS Connection)
- ◆ DAST-1900-DPX-1  
(1900 / QMA / Duplex DAS Connection)
- ◆ DAST-1900-SM  
(1900 / SMA / Simplex DAS Connection)
- ◆ DAST-1900-DPX-1-SM  
(1900 / SMA / Duplex DAS Connection)
- ◆ DAST-1900-0dB  
(1900 / QMA / Simplex DAS Connection / No High Power or Tx Variable Attenuator)
- ◆ DAST-1900-SM-0dB  
(1900 / SMA / Simplex DAS Connection / No High Power or Tx Variable Attenuator)
- ◆ DAST-1900-6dB  
(1900 / QMA / Simplex DAS Connection / 6 dB High Power Attenuator)
- ◆ DAST-1900-SM-6dB  
(1900 / SMA / Simplex DAS Connection / 6 dB High Power Attenuator)
- ◆ DAST-1900-NDPX  
(1900 / QMA / No Input Duplexer / Simplex DAS Connection)
- ◆ DAST-1900-NDPX-SM  
(1900 / QMA / No Input Duplexer / Simplex DAS Connection)

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89 Leuning Street  
South Hackensack, NJ 07606

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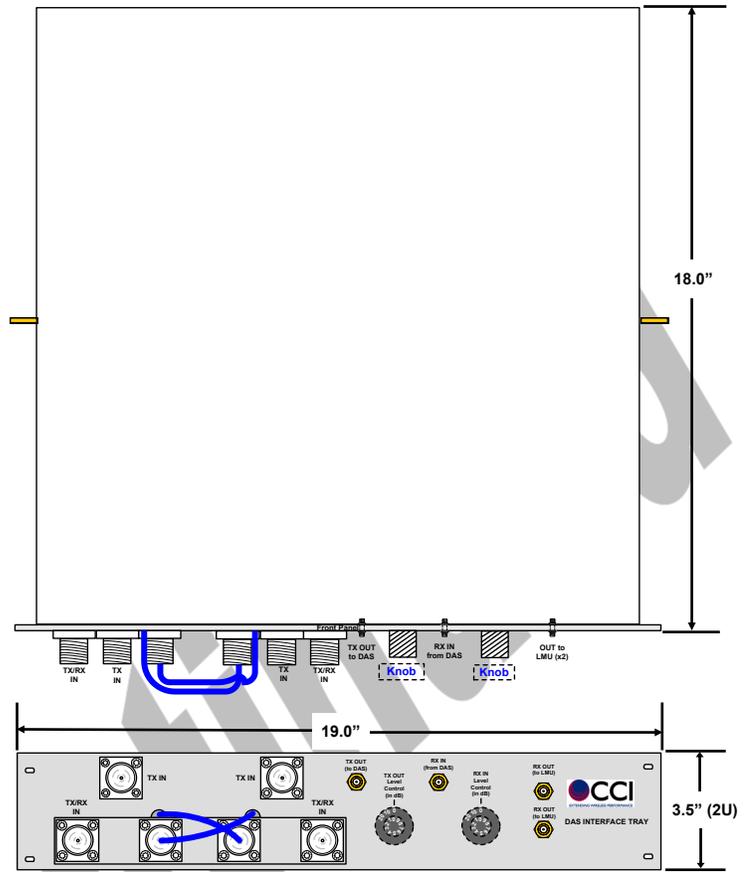
### Ordering Information:

- ◆ Model DAST-850 (CEQ. 31327)
- ◆ Model DAST-1900 (CEQ. 31328)
- ◆ Model DAST-850-DPX-1-SM (CEQ. 32021)
- ◆ Model DAST-1900-DPX-1-SM (CEQ. 32020)
- ◆ Model DAST-850-SM-0dB (CEQ. 32019)
- ◆ Model DAST-1900-SM-0dB (CEQ. 32022)
- ◆ Model DAST-1900-6dB (CEQ. 10849)
- ◆ Model DAST-1900-SM-6dB (CEQ. 10850)
- ◆ Model DAST-850-6dB (CEQ. 10851)
- ◆ Model DAST-850-SM-6dB (CEQ. 10852)

### Options:

- ◆ -DPX-1 "Single Duplexed connection to/from DAS"
- ◆ -SM "SMA Bulkhead Connectors to/from DAS and LMU (SMA's Replace QMA connectors on Standard Model)"
- ◆ -0dB (0 dB Version)
- ◆ -6dB (6 dB Version)

## DAS Interface Tray Internal Outline Drawing



Front Panel Marking & Components will vary depending on Model # Supplied

### Features

- ◆ 4 Inputs (2 TX/RX, 2 TX Only)
- ◆ Supplied with two (2) 30 foot QMA-Male to N-Male Cables or SMA-Male to N-Male Cables (dependent on DAS connectors used on the ordered DAS Interface Tray)
- ◆ Single DAS Connection
- ◆ Front Panel Gain Adjust
- ◆ LMU Outputs
- ◆ Passive System
- ◆ Optional Duplexed connection to DAS available
- ◆ Optional SMA Connectors available
- ◆ Optional 0 dB Version available (Removes 20 dB High Power and Variable Attenuators from Tx path)
- ◆ Optional 6 dB Version available (Replaces 20 dB High Power Attenuator with 6 dB Attenuator in Tx path)

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