

DSP85 Digital Repeater

Technology Innovation

DSP (Digital Signal Processing) technology is utilized to achieve the highest level of performance and spectrum agility. DSP filtering provides unmatched selectivity and can be finely tuned to help overcome difficult RF problems such as adjacent channel interference. The CSI Digital Repeater permits re-tuning of multiple passband configurations, locally or remotely, with virtually no downtime. The Graphical User Interface allows for effortless set up and monitoring via a standard web browser. In addition, the CSI Digital Repeater supports SNMP, which provides ease of integration with Network Management Systems.

Product Features

Available in 1/2 watt and 1 watt options

Software Defined Filters

High Selectivity

- DSP (Digital Signal Processing) technology provides a higher standard of filter characteristics

Spectrum Agility

- Band edges are user defined
- Unlimited number of passbands
- From full PCS to multiple 1.25 MHz channels

Change Filters on Demand

- Filter configurations on demand
- Download custom filters locally or remotely
- Install new filters to meet changing spectrum requirements

Network Protection

- Oscillation detection/prevention
- Automatic Gain Control
- Overload Shutdown

Remote Monitoring and Control

- Remote query of power output, AGC status, gain and amplifier
- Shutdown/restart control
- Security control for remote and local access
- Major and minor alarms
- Filter configuration remotely selectable
- CDMA or GPRS compatible



Model Numbers

1/2 Watt:

- CSI-DSP85-C
Cellular
- CSI-DSP85-P
PCS
- CSI-DSP85-C/P
Dual Band, Cellular and PCS
- CSI-DSP85-L7AB
Lower 700 MHz A, B
- CSI-DSP85-U7C
Upper 700 MHz C

1 Watt:

- CSI-DSP85-201-C
Cellular
- CSI-DSP85-201-P
PCS
- CSI-DSP85-201-C/P
Dual Band, Cellular and PCS
- CSI-DSP85-201-L7AB
Lower 700 MHz A, B
- CSI-DSP85-201-U7C
Upper 700 MHz C

Accessories

Modem Kits:

- CSI-DSPMOD-D-EK/CDMA
CDMA, Ethernet Interface
- CSI-DSPMOD-D-GSM
GSM, Ethernet Interface

UPS:

- CS48-985-600
Battery backup, 2 hours
single band, 1 hour dual band
- CS48-985-601
Battery backup, 4 hours
single band, 2 hours dual band

Mounting Kit:

- CSI-RWM-DSP85
19" rack or wall mount kit



Model Numbers / Frequency Ranges

BAND	LINEAR OUTPUT POWER	0.5 Watt	1 Watt
Lower 700 MHz A, B	698-710 MHz & 728-740 MHz	CSI-DSP85-L7AB	CSI-DSP85-201-L7AB
Upper 700 MHz C	776-787 MHz & 746-757 MHz	CSI-DSP85-U7C	CSI-DSP85-201-U7C
Cellular	824-849 MHz & 869-894 MHz	CSI-DSP85-C	CSI-DSP85-201-C
PCS	1850-1910 MHz & 1930-1990 MHz	CSI-DSP85-P	CSI-DSP85-201-P
Cellular/PCS	824-849 / 1850-1910 MHz & 869-894 / 1930-1990 MHz	CSI-DSP85-C/P	CSI-DSP85-201-C/P

Electrical Specifications

	LTE 700 Single Band	Cellular or PCS Single Band	Cellular/PCS Dual Band
Passband (s)	N/A	1-5 non-contiguous	2-10 non-contiguous
Passband Options	Lower A or B; Upper C	1.25 MHz (Full Band)	1.25 Mhz (Full Band)
Gain	85 dB	85 dB	85 dBm
Linear Output Power (typical)			
DSP85	27 dBm	27 dBm	27 dBm
DSP85-201	30 dBm	30 dBm	30 dBm
Noise Figure	5.0 dB	5.0 dB	5.0 dB
AGC Dynamic Range	31 dB	31 dB	31 dB
Propagation Delay	2.5	2.5	2.5
Gain Adjustment Range	30 dB, 0.5 dB Steps	30 dB, 0.5dB Steps	30 dB, 0.5dB Steps
Filter Switching Time (typical)	1 second	1 second	1 second

Mechanical Specifications

	Single Band	Dual Band
Power Requirements	1.7 Amps @ 120 Vac 0.9 Amps @ 230 Vac	3.2 Amps @ 120 Vac 1.7 Amps @ 230 Vac
Dimensions	18.5 x 10.0 x 4.7 in.	19.25 x 18.6 x 4.7 in.
Weight	27.5 lbs	35 lbs
Connectors	N-Female	N-Female

Specifications subject to change without notice.

Dual Band Configurations

