ST-800 LTE Digital ICS Repeater

Preliminary

4G Solution for High Density In-Building Traffic

Coiler developed the ST-800 Digital ICS Repeater to solve LTE (Band 20) coverage problems in areas with high density traffic. Its unique features and compact, lightweight design allow for optimal unit performance in a variety of medium and larger-sized areas such as office buildings and conference facilities, where it can greatly improve the quality of service and user experience.

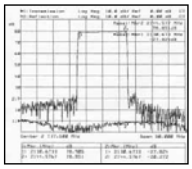
The ST-800 Digital ICS Repeater boosts indoor signal levels, enabling high data transmission rates and allowing operators to exploit the full capabilities of their LTE network. Powerful, versatile and designed for network safety, the ST-800 Digital ICS Repeater is the ideal solution for operators looking to extend the in-building coverage of their LTE network.

	800	900	1800	2100
Soho		AT-900 13dBm 55dB/65dB		AT-2200 13dBm/7dBm 65dB PS-2200 13dBm/10dBm 70dB
Pico	ST-800 18dBm 75dB	VB-900 18dBm 70dB	VB-1800 18dBm 70dB ST-1800 18dBm 75dB	VB-2200 18dBm 70dB ST-2200 18dBm 75dB
Mini		BR-900 20dBm 80dB MB-900 19/23dBm 80dB	BR-1800 20dBm 80dB MB-1800 20/23dBm 80dB	BR-2200 23dBm 80dB
Micro		CR-900 30dBm/33dBm 90dB		CR-2200 23dBm/37dBm 90dB
Macro				AX-2200 23dBm/43dBm 100dB

*Some of the above products are also available in dual band.

Key Features and Benefits

Variable Bandwidth



The ST-800 boosts signal for up to four UMTS channels within a 20MHz bandwidth; high digital filter selectivity provides sharp out-of-band rejection and ensures that only the operator's frequency is amplified. Bandwidth and centre frequency can be adjusted on-site through Coiler's OMTapp mobile application, while remote configuration is possible via NMS (optional).

Interference Cancellation System

The ST-800's 30dB of interference cancellation system (ICS) helps avoid oscillation and can reduce the distance between donor and service antennas to as little as 0.5 meter without oscillation.

LED Display

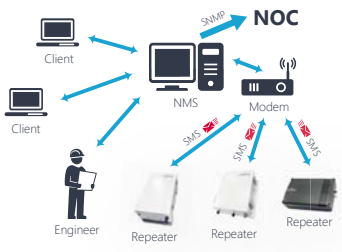
To facilitate installation, LED lights display the received signal strength (RSSI) and key alarms such as interference issues.

Bluetooth Support

Wireless connection to Coiler's OMTapp mobile application is now possible via Bluetooth, both within short distance of the repeater and through service antennas.

Optional Remote Management & Call Testing

An integrated Remote Survey Unit (RSU) allows for remote control and monitoring of the ST-800's parameters via Coiler's Network Management System (NMS). The RSU can also execute call tests or throughput tests to simulate user experience and check network performance 24/7.



High Gain and Output Power

Combines a gain of 75dB with a UL/DL output power of +18dBm to effectively cover medium and larger-sized areas.

Complete Network Safety

Functions such as Auto Isolation Detection (AID), Auto Shutdown (ASD) and Auto Turn-on (ATO) ensure that the repeater is safeguarded at all times. The Automatic Gain Control (AGC) feature protects the network from oscillation and interference, preventing spikes in output power that could damage the system or interfere with base stations.

Coiler ST Digital ICS Repeater Series

QW-05047; ST-800 ver G1

COILER Coverage and Beyond

Coiler Corporation offers an extensive portfolio of indoor and outdoor repeaters for RF signal enhancement. Our products allow mobile network carriers, system integrators and cell phones users to quickly and cost-effectively address coverage considerations and improve reception in iDEN, CDMA, GSM, DCS, PCS, UMTS, WiMAX and LTE networks. Some global operators such as Vodafone, Orange, T-Mobile, Telefonica o2, Telenor, Tele2, Singtel, KPN and others have trusted our experience and expertise.

www.coiler.com.tw

afaq ISO 9001 Quality

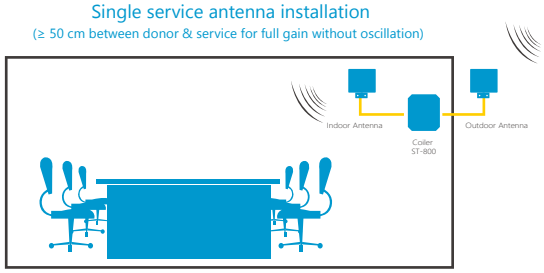
TAF Quality Management QC017

ST-800 LTE Digital ICS Repeater

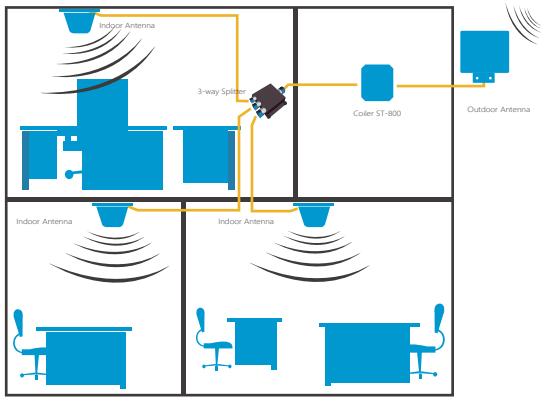
Preliminary

Sample Installations

Single service antenna installation
(≥ 50 cm between donor & service for full gain without oscillation)



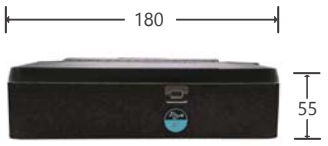
Multiple service antenna installation



Dimensions

(All measurements in millimeters)

Front View



Bottom View

Electrical Specifications:

Frequency Range (Type A)	Uplink: 832 ~ 852MHz
	Downlink: 791 ~ 811MHz
Frequency Range (Type B)	Uplink: 842 ~ 862MHz
	Downlink: 801 ~ 821MHz
Frequecy Adjustable Step	0.1MHz
Bandwidth	5/10/15/20MHz
Linear Gain (UL/DL)	75dB
Out-of-Band Gain	3GPP TS 25.106
AGC Range	30dB
AGA Range	≥ 30dB
Frequency Stability	≤ 0.01 ppm
Output Power (UL/DL)	+18dBm
EVM	≤ 8% RMS
Spurious Emission	3GPP TS 25.106
Return Loss	≤ -14dB
Group Delay	≤ 4.5μs
Noise Figure (UL/DL)	≤ 7dB
Power Consumption	30W (12V / 2.5A)
System Impedance	50Ω
ACRR (UL/DL)	≥ 20dB
DL-UL Isolation	≥ 95dB
ICS Performance	G = I + 10dB
ICS Window Size	≤ 500ns
Power Requirements	100 ~ 240V AC / 47 ~ 63Hz

Mechanical & Environmental:

Weight	< 2.5 kg
Dimensions	180 x 228 x 55 mm
Operating Temperature	-10ºC ~ +50ºC
RF Connector Type	N Type Female (1 x BTS, 1 x MS)
Local Alarm Indication	Shutdown Alarm

Coiler ST Digital ICS Repeater Series

COILER
Coverage and Beyond

Coiler Corporation
21F-6, No.77, Sec.1, Xintai 5th Rd., Xizhi Dist.,
New Taipei City 221, Taiwan(R.O.C.)
TEL : +886 2 2698 2627
FAX : +886 2 2698 2629
E-MAIL : marketing@coiler.com.tw
WEBSITE : www.coiler.com.tw