# Description: 5G Digital Quad Band Repeater

# Model: DS20T-EDWN41

## Product Overview

Huaptec low power digital repeater is a relay amplifier device for the same frequency mobile communication signal. It is commonly used to optimize mobile networks. mainly used for extending the coverage for BTS and eliminating the blind areas. Comparing to BTS, the features are: low engineering cost, short construction period, simple installation and maintenance.

The repeater is optional industry level remote control and monitoring function and can be controlled and monitored by one console.



## Key Features

- MGC and AGC function
- Independent uplink and downlink gain control and on/off for each sub band
- Each sub band is movable anywhere within respective band
- No Hurdles for Network Migration without changing any Hardware
- Designed for indoor installation
- High integration with lesser cable Interface
- Local Monitoring: PC via USB | Smartphone via Bluetooth
- Remote control： Wifi/Ethernet/SIM card

## RF Parameters

| | Bands | Uplink | Downlink |
|---|---|---|---|
| **Frequency Range** | GSM/UMTS900 | 880MHz-915MHz | 925Mhz-960MHz |
| | DCS/LTE1800 | 1710MHz-1785MHz | 1805MHz-1880MHz |
| | UMTS/LTE 2100 | 1920MHz-1980MHz | 2110MHz-2170MHz |
| | N41 | 2610MHz-2690MHz | 2610MHz-2690MHz |
| **Operating Frequency** | GSM/UMTS900 | 890MHz-900MHz | 935Mhz-945MHz |
| | DCS/LTE1800 | 1761MHz-1773MHz | 1856MHz-1868MHz |
| | UMTS/LTE 2100 | 1920MHz-1935MHz | 2110MHz-2125MHz |
| | N41 | 2610MHz-2690MHz | 2610MHz-2690MHz |
| **Gain** | | 65dB | 70dB |
| **Max Output Power** | | 17dBm | 20dBm |
| **Band width** | GSM/UMTS900 | One Sub-Band and tunable (10MHz/15MHz/20MHz) | |
| | DCS/LTE1800 | One Sub-Band and tunable (10MHz/12MHz/20MHz) | |
| | UMTS/LTE 2100 | One Sub-Band and tunable (10MHz/15MHz/20MHz) | |
| | N78 | 80MHz (Customized) | |
| **MGC (Step Attenuation)** | | ≥ 31 dB / 1 dB step | |
| **Automatic Gain Control** | | ≥ 51 dB | |
| **Gain Flatness** | | ≤ 6 dB | |
| **Noise Figure** | | ≤ 6 dB | |
| **Group Delay** | | ≤ 4 μs | |
| **VSWR** | | ≤2 | |

| | | |
|---|---|---|
| **Frequency Stability** | | ≤0.01ppm |
| **Spurious Emission** | 9KHz~1GHz | ≤-36dBm |
| | 1GHz-12.75GHz | ≤-30dBm |
| **UMTS System** | Spurious Emission Mask | Meet 3GPP TS 25.143, 3GPP TS 25.106 |
| | EVM | ≤ 12.5% |
| **LTE System** | Spurious Emission Mask | Meet 3GPP TS 36.143, 3GPP TS 36.106 |
| | EVM | ≤ 8% |
| **NR system** | Spurious Emission Mask | Meet 3GPP TS 38.104 |
| | EVM | ≤ 3.5% |

## Electrical Parameters

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|---|---|
| **Impedance** | 50 ohm |
| **Power Supply** | Input AC100～240V，50～60Hz, Output DC 12V/7A |
| **Power Consumption** | ≤ 45 W |

## Mechanical Parameters

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|---|---|
| **I/O Port** | N-Female |
| **Dimensions** | 245*263*44 mm |
| **Weight** | 4 kg |

## Environmental Parameters

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|---|---|
| **Operating Temperature** | (-)25 ℃~+55 ℃ |
| **Storage Temperature** | (-)40 ℃ to +85 ℃ |
| **Relative Humidity** | 5% - 95% |
| **Environment Conditions** | IP40 |

## Software

| | |
|---|---|
| **Local Monitoring** | PC via USB \| Smartphone via Bluetooth |
| **Controlled Parameters** | Gain, Frequency, Repeater ON/OFF, Alarm Message, etc. |
| **Monitoring Parameters** | Gain, Frequency, Repeater ON/OFF, Alarm Message, etc. |
| **Alarm Items** | Power off Alarm , Low output power Alarm, Device Temperature Alarm, etc. |

## Applications

Expand signal coverage of fill signal blind area where signal is weak or unavailable.

Indoor: Hotels, Exhibition Centers, Basements, Shopping Malls, Offices, Parking Lots etc.

It is mainly applicable to such case:

## Outline Drawing

