



# **TY-3060 6W X Band Digital Outdoor Transmitter**

**Technical Specification  
V3.01**

***Chengdu Tengyue Electronics Co., LTD.***

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*Add: 518 5F, E-trade Building, 126 Yihuan Road East 2nd Section, Chengdu City,  
610052, China*

*TEL: 86 (28) 84303287*

*FAX: 86 (28) 84310769 Wechat:tye\_catherine*

## Overview



## Outline

Thanks for your interested in our products.

TY-3060 X band digital outdoor transmitter is a kind of wireless digital TV signal transmission device latest developed by TYE. It works on Ku band (7.8GHz-8.5GHz), and output power 6W and adopts the waterproof outdoor structure. It is designed with modularization, high output power. Its function of AGC, make it to maintain a constant output power transmitter, and ensures stable and reliable operation of the transmitter. It can meet with various modulation modes like COFDM, 16QAM, 32QAM, 64QAM, QPSK and etc.. Comparing to other frequency, the X band transmitter can broadcast more channels, works on high frequency, with the strong ability of anti-interference, wide working bandwidth, all of these make it widely used in wireless signal point to point and omnidirectional transmission link. Its max transmission distance can reach 50km.

Today, this kind of transmitter offers the best technical proposal which can replace MMDS signal coverage.

## Main features

- The X series transmitter is specifically researched, designed and produced according to the demands of customers.
- With a wide frequency band, large program capacity and strong ability of anti-interference. Operation frequency: 7800-8500MHz.
- Optional Output Power: 200mW/2W/6W/ 8W.
- With the aluminum alloy material and outdoor structure, its convenient modular design can arrange on antenna directly to reduce the loss of feeder.
- With design of rain-proof and moisture proof around the clock.

- With simple process in installment and debugging.
- Convenience in maintenance.
- Combined Ku series transmitter with MMDS/DVB-T transmitters of TYE, we can build seamless coverage system with higher cost performance.
- With RFU modularization, broadband and high consistency design, super-linear and all-solid-state power amplifier.
- Automatic Level Control in larger dynamic range (ALC); Automatic Gain Control (AGC); adaptation of wide dynamic range in different environments.
- With over-VSWR, over-voltage, over-current, over-heat and lightning auto-protective functions.
- With extended interface for remote control and GSM message auto-alarm system (optional), concentrated monitoring can be achieved.
- With the international and the domestic advanced level of the design and production of equipment.
- Succeed in system construction in Philippines, Laos, Indonesia, Somalia, Mexico, South Africa and other regions and countries.

## Technical Specifications

|                             |  |
|-----------------------------|--|
| Model                       | TY-3060  |
| Power Level                 | 6W   |
| RF Output Frequency Range   | 7800-8500MHz(frequency band carrier signal takes could be set arbitrarily, or specified by user) |
| Bandwidth                   | Suitable for single channel 6MHz/7MHz/8MHz<br>Multi-channel Maximum Bandwidth $\leq 300$ MHz     |
| Modulation Mode             | COFDM/16QAM/32QAM/64QAM/QPSK   |
| Power Levels                | 200mW/2W/4W/ 8W/10W/12W/16W/24W optional   |
| RF Output Interface         | BJ80 waveguide connector   |
|                             | Return Loss: 20dB  |
| RF Frequency Response       | BW: 200MHz   |
|                             | Passband Fluctuation: $\leq 2.0$ dB  |
|                             | Any Within 10MHz: $\leq 1.0$ dB  |
| Group Delay Characteristics | $\leq 40$ nsec   |
| IF Input Level              | -25~-10dBm   |
| IF Signal Input Frequency   | 950~2150MHz(or customized)   |
| IF Input Interface          | 75 $\Omega$ /F connector   |
|                             | Return Loss: 15dB  |
| In-band Spur Restraint      | -60dBc(relative digital signal level)  |
| Automatic Level Control     | $\geq 20$ dB   |
| Gain Control Error          | Gain Control: 0~20dB,error $\leq \pm 0.5$ dB   |
|                             | Gain Control: 20~31dB,error $\leq \pm 0.75$ dB   |

|                          |  |
|--------------------------|--|
| Gain Control Range       | 0~31dB, 1.0dB stepping                                 |
| Environmental Conditions | Working Temperature Range: -20°C~+45°C                 |
|                          | Humidity: no condensation                              |
|                          | Relative Humidity: 0~95% nonsaturation                 |
| Working Voltage          | AC 220V±10%,50/60Hz                                    |
| Package Size (L*W*H)     | 61*43*41cm   |
| Package Weigh            | 32Kg   |
| Remote Control           | Remote administration and SMS alarm function(optional) |

## **TYE Series Transmitters**

| <b>Item</b> | <b>Product name</b>                  | <b>Frequency Range</b> | <b>Output Power</b> | <b>System</b>  |
|-------------|--------------------------------------|------------------------|---------------------|--|
| 1           | VHF Analog TV Transmitter            | 170MHz-230MHz          | 20W-2KW             | PAL/NTSC/SECAM   |
| 2           | VHF Digital TV Transmitter           | 170MHz-230MHz          | 5W-300W             | DVB-T/T2/S/S2/C,QAM  |
| 3           | VHF Live/Mobile Transmitter          | 300MHz-350MHz          | 5W-30W              | Point to point transmission  |
| 4           | UHF Analog TV Transmitter            | 470Mhz-860MHz          | 20W-2KW             | PAL/NTSC/SECAM   |
| 5           | UHF Digital TV Transmitter           | 470Mhz-860MHz          | 10W-1KW             | DVB-T/T2/S/S2/C,QAM  |
| 6           | L Band TV Transmitter                | 1.3GHz-1.5GHz          | 20W-50W             | DVB-T/T2/S/S2/C,QAM<br>Point to point transmission                                     |
| 7           | S Band (MMDS) Digital TV Transmitter | 2.0GHz-2.9GHz          | 10W-500W            | DVB-T/T2/S/S2/C,QAM,<br>Point to point transmission ,<br>PAL/NTSC/SECAM(Analog signal) |
| 8           | 8GHz TV Transmission Module Set      | 7.8GHz-8.3GHz          | 500mW-2W            | DVB-S/S2(8PSK/QPSK)<br>Point to point transmission                                     |
| 9           | Ku Band (MVDS) TV Transmitter        | 10.7GHz-12.0GHz        | 200mW-24 W          | DVB-S/S2(8PSK/QPSK)<br>Point to point transmission                                     |