

# Thulium-Doped Fiber Amplifier

**STTDFA**



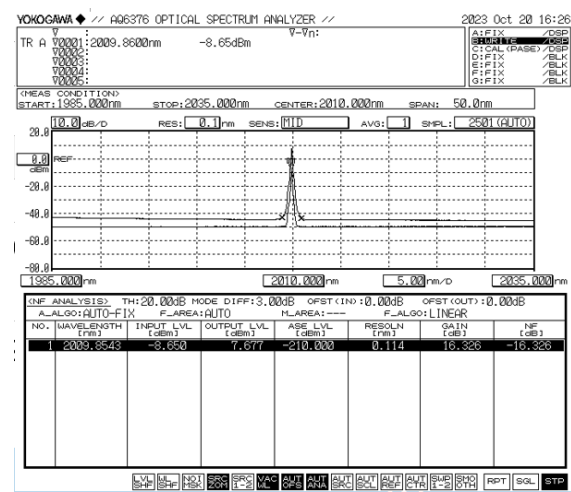
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Thulium-doped Fiber Amplifier – STTDFA series

SIMTRUM's Thulium-Doped Fiber Amplifier (TDFA) is designed to amplify 2μm band laser signals in the -10dBm to +10dBm power range, with a maximum saturated output power of 40dBm. This amplifier is commonly used to boost the emission power of laser sources.



Features

- Wide wavelength range
- High output power
- Low noise

Application

- Fiber optic communication
- Fiber optic sensing
- Fiber optic laser

Specifications

| Optical Parameters           | Unit | Typical Value                                                     | Remarks      |
|------------------------------|------|-------------------------------------------------------------------|--------------|
| Wavelength Range             | nm   | 1920~2020                                                         | *Note 1      |
| Input Power                  | dBm  | -10~10                                                            | Customizable |
| Saturated Output Power       | dBm  | 20/23/25/26/27/30/33/37/40                                        | @0dBm input  |
| Noise Figure                 | dB   | ≤5.0                                                              | @0dBm input  |
| Polarization Mode Dispersion | ps   | ≤0.5                                                              |              |
| Polarization Mode Gain       | dB   | ≤0.3                                                              |              |
| Input/Output Return Loss     | dB   | >35                                                               |              |
| Optical Power Control        | -    | Output Power Monitoring                                           |              |
| Fiber Type                   | -    | SMF-28; SMF-1950                                                  |              |
| Connector Type               | -    | FC/APC                                                            |              |
| Operating Mode               | -    | Automatic Current Control (ACC)/<br>Automatic Power Control (APC) |              |

Specifications

| General Parameters    | Desktop Version        | Modular Version            |
|-----------------------|------------------------|----------------------------|
| Control Mode          | Button                 | RS232 Serial Communication |
| Communication Port    | Optional               | DB9 Female                 |
| Power Supply          | 100~240V AC, <30W      | 12V DC, <60W               |
| Dimensions            | 260(W)×280(D)×120(H)mm | 139(W)×235(D)×70(H)mm      |
| Operating Temperature | -5 ~ +35°C             |                            |
| Operating Humidity    | 0 ~ 70%                |                            |

| Ordering Information/ Product Code |             |                      |                              |                        |             |
|------------------------------------|-------------|----------------------|------------------------------|------------------------|-------------|
| Series                             | Wavelength  | Amplifier Type       | Saturated Output Power (dBm) | Fiber                  | Packaging   |
| TDFA                               | 1920~2020nm | BA = Power Amplifier | 20/23/25/26/27/30/33/37/40   | SM = Single-mode Fiber | M - Module  |
|                                    |             |                      |                              |                        | B - Desktop |