

Section I. Switch

**AN/TTC-39A(V)1
Automatic Telephone Central Office**

NSN: 5805-01-241-9710

Reference: TM 11-5805-747-12-1

General Information

The AN/TTC-39A(V) is modular/transportable switching communications and nodal control equipment that provides secure automatic switching and technical control for both digital and analog communications. It is a hybrid circuit switch, with a 744-line capacity (96 analog and 648 digital). The facility provides technical control functions including channel reassignment and multiplexing, line testing, engineering orderwire, atomic timing standard, and analysis or trouble reports, alarms, and system data. It signals and supervises analog and digital trunks and lines. This includes 20 Hz/1600 Hz ringdown, DC closure, dial pulse, DTMF, and 6-wire E&M using tone burst, confirmation, non-confirmation, common channel, and digital in-band-trunk signaling (DIBITS).

Major Components

- 1 Switching Module Assembly S-280B/G (Modified)
- 1 Master Power Distribution Unit ON-224/T
- 2 PU/406 Electric Power Units (30 kW) AN/MJQ-10A
- 1 Storage Shelter S-640
- 1 Maintenance Shelter S-639

Technical Characteristics

Total External Lines	744
Digital Matrix	648
Analog Matrix	96
Maximum local Loops/Trunks (within this total)	240
Digital Local Loops	144
Analog local Loops/Trunks	96
Maximum Analog Loops via Digital Transmission Group (DTGs)	60
Switch Rate	16/32 kb/s
Total DTGs	30

**Technical Characteristics
(cont.)**

Maximum Channels Per DTG	144
In-Band Digital Trunks (Loops)	200
Call Rate	7,500 (calls per busy hour)
Analog Bandwidth	108 kHz
Numbering Plan	TRI-TAC NATO, 13 digits military tactical, 7 digits Automatic Voice Network (AUTOVON), 10 digits
Power	120/208 V AC 50, 60, 400 Hz, three-phase
Vehicle Requirements	One 5-ton truck (TTC-39A) two 2 1/2-ton trucks (S-640) (S-639)

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