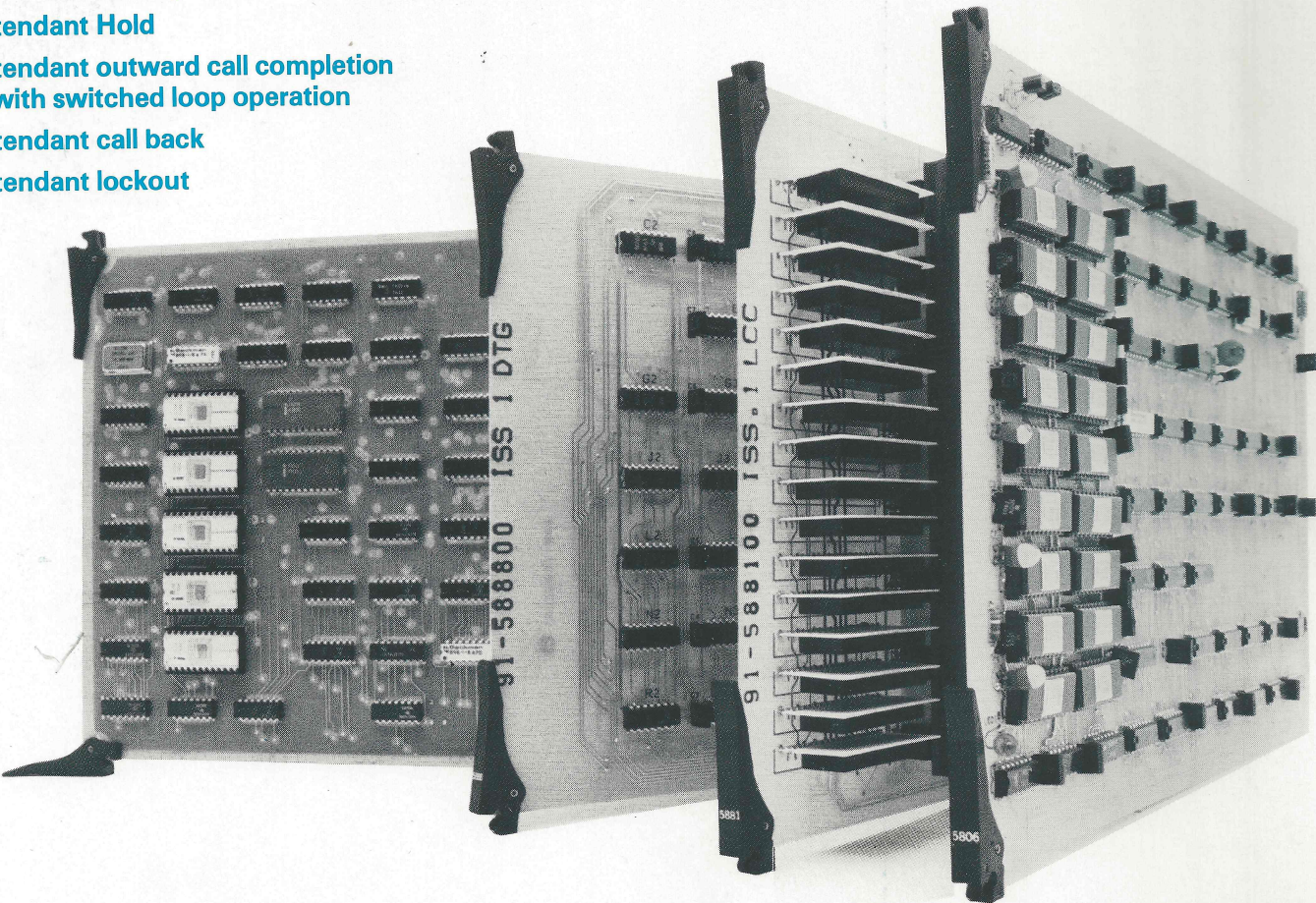


# 580 DSS FOR TANDEM SWITCHING

# FEATURES

- Direct Inward Dialing
- Direct Outward Dialing
- Delayed Dial (Wink Start)
- Dial Transfer of Incoming/Outgoing Calls
- Extension of Incoming Calls to Stations
- Off-Net and On-Net Access by Attendant
- Identification of Incoming Calls on CCSA Trunks
- Call Forwarding--Don't Answer
- Call Forwarding--Busy Line
- Attendant Access via Directory Listed Number
- Console operation--switched loop Camp-on
- Attendant Recall (with or without dial transfer)
- Attendant Recall (on calls extended to tie trunks)
- Trunk answer any station
- Attendant Hold
- Attendant outward call completion with switched loop operation
- Attendant call back
- Attendant lockout



Wescom's 580 Digital Switching System offers complete compatibility with the new switched private network service (CCSA). Pulse code modulated, micro-processor controlled, the 580 is the latest state of the art, nonblocking telecommunications switching system. All features and capabilities required by large users of private network service are available in the 580.

Any station in the network may be accessed directly by any other station using either dial pulse and/or Touch Tone® signals. Trunks may be accessed on the same basis as stations.

The 580 accepts and switches, on a 4-wire basis, calls received on tie lines, WATS lines, FX lines and local exchange lines.

The most desirable route will be selected for completion of a call, based upon the originating circuit group and point of termination. Routing patterns may be varied according to traffic requirements.

Calls to off-net local exchange lines, FX or WATS lines will be switched through a distant PBX.

Automatic Message Recording will be organized by user authorization codes or originating station number. The data base will include user authorization code or station number and line group, call connect time and date, duration of call, called number, and the circuits used.

The 580 will also collect and store traffic statistics as to line usage and loading. The data base will include individual line and line group incoming and outgoing attempts, combined total line group attempts, line group outgoing completions, line group incoming and outgoing overflows, individual line and line group usage, line group incoming and outgoing ATBs, incoming error attempts by line group, outgoing no routes available through the switch.

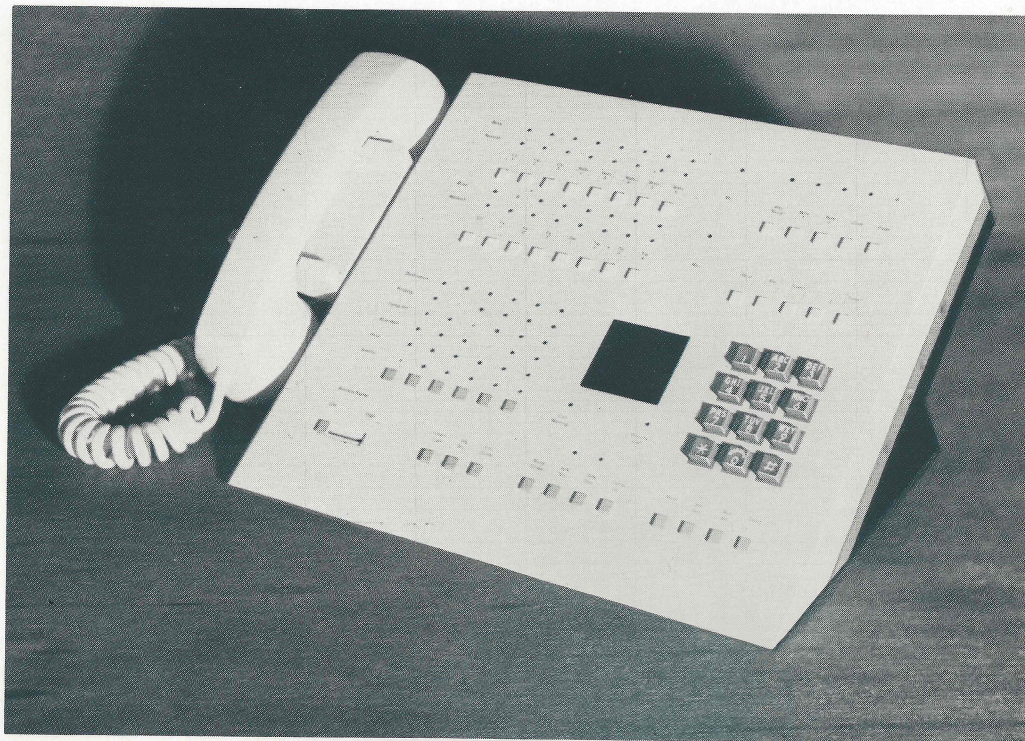
Special intercept recording and time of day announcements will be provided.

Codes will permit selection of discrete conditioned lines and/or combination of individual lines into wideband data trunks.

A control console permits access to the system to issue commands and to receive traffic and maintenance messages.

The 580 Digital Switching System also functions as a PBX with all of the features and capabilities your customers want--in a single universally applicable package.

The 580 performs self testing during operation to detect and isolate internal switch component malfunctions. It also monitors external circuit performance in order to identify faults, take out-of-service and notify system management. Provision is made for diagnostic sub-routines to further isolate malfunctions and to verify service restoration.



**capacities (maximum)**

lines 2400; trunks, 576; registers 64; attendant consoles, 16.

**network**

4-wire non-blocking PCM switching network; PCM format conforms to North American CCITT standards.

**control**

duplicated distributed stored program control complex using microprocessors arranged in multiprocessor configuration; stored program control is provided in single software package.

**station loop resistance**

1000 ohms (including telephone).

**ringing**

20 or 30Hz,  $90 \pm 10V$  with interruption rate of 2-seconds on/4-seconds off; ring trip occurs during ringing or silent interval.

**rotary dial**

8 to 12 pps dial speed; 55 to 70% break.

**DTMF frequencies**

conform to Bell System Touch-Tone® frequencies.

**audible tone signals**

digital tones that conform to Bell System Precise Tone Plan.

**traffic**

1 Erlang (36 ccs/line less connection time); 18000 busy hour calls.

**system impedance**

600 ohms and 2mF.

**bandwidth**

64k bits per channel (nominal 4k Hz analog).

**frequency response**

(300 - 3000Hz) line-to-line,  $\pm 0.7dB$ ; line-to-2W trunk,  $\pm 0.5dB$ ; line-to-4W trunk,  $\pm 0.5dB$ .

**insertion loss (at 1000Hz)**

line-to-line, -5dB. Line-to-CO trunk, 0dB; line-to-tie trunk, -2dB; trunk-to-trunk, 0dB.

**return loss**

low frequency singing, -18dB; echo, -22dB; high frequency singing, -22dB.

**transhybrid loss**

35dB.

**longitudinal balance and rejection**

greater than 55dB from 50 to 3400Hz.

**harmonic distortion**

less than 1%

**delay distortion**

less than 200 usec from 600 to 3000Hz; less than 500 usec from 400 to 3200Hz.

**crosstalk coupling**

greater than -70dB from 300 to 3400Hz.

**idle channel noise**

less than 23dBrc

**impulse noise**

0 counts in 5 minutes at 42dBrc level.

**equipment frame dimensions**

73-1/2 inches (186.7cm) high; 35 inches (88.9cm) wide; 26 inches (66cm) deep.

**environment**

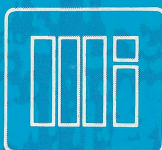
recommended operating temperature range,  $+40^{\circ}F$  ( $+4.4^{\circ}C$ ) to  $+90^{\circ}F$  ( $+32.2^{\circ}C$ ); relative humidity, 20 to 95%.

**power requirements**

-44 to -54Vdc power plant with or without batteries.

**note**

stated transmission specifications are system objectives and are subject to change.



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