

Subrate Data Card (SRU)

Features

- **Enables connectivity to low speed V24/V28 (RS232) based peripherals.**
- **V24/V28 (RS232) ports can be independently programmed for synchronous or asynchronous operation.**
- **Low delay for mission critical applications.**
- **Integral testing capabilities include extensive Bit Error Rate Test (BERT) and loopback options on a per port basis.**
- **High port density for maximum peripheral connectivity.**
- **Supports industry standard subrate multiplexing schemes including DS0-A, DS0-B and X.50 Div 3.**

Low speed V24/V28 (RS232) data is supported through the subrate data unit (SRU) card (Model 822060). The SRU card can be installed in any user slot in the IMACS chassis and supports ten (10) V24/V28 (RS232) data ports. Each V24/V28 (RS232) port can be independently programmed for synchronous ("sync") operation at speeds of 2.4, 4.8, 9.6, 19.2, 28.8 and 38.4 Kbps or for asynchronous ("async") operation at speeds of 300 bps, 1.2, 2.4, 4.8, 9.6, 19.2, 28.8 and 38.4 Kbps.

The SRU incorporates a built-in V.14 async-to-sync converter avoiding the "oversampling method" and thus saving bandwidth. Asynchronous data circuits are converted to synchronous mode by the SRU card prior to multiplexing onto a WAN aggregate.

Each SRU card provides ten (10) RJ48 female V24/V28 (RS232) connectors that support the EIA 561 standard.

Software-initiated diagnostics supported on the SRU card include the setting of local loopbacks towards either the network ("net") or the attached DTE equipment ("dte"). In addition, a remote loopback function allows the SRU card to generate three DDS-compatible latching loopback codes for the far-end OCU, CSU and DSU equipment respectively. Similarly, the SRU data port may be programmed to detect and respond to both latching and non-latching DDS-format OCU, CSU and DSU loopback codes initiated from the remote end of the circuit. A time-out option authorizes the SRU port to automatically release the loopback after ten (10) minutes.

Subrate data ports are multiplexed into industry standard DS0 formats. The user may specify the format of the DS0 that the data port is assigned to. The choices are: (1) DS0-A which allows only one data port to be mapped into the DS0 and (2) DS0-B which allows multiple data ports from multiple SRU cards in the system to be mapped into the same DS0 time slot. The SRU Card also supports X.50 Division 3. X.50 is an ITU-IT (CCITT) standard for subrate multiplexing.

Subrate Data Card

Card Specification	<p>Number of ports Physical interface Electrical interface Procedural interface Synchronous data Format Transmit clocking Speeds Asynchronous data Format Stop bits Data bits Parity Speeds Signaling DSR CTS CTS delay RLSD/DCD</p> <p>Diagnostics & alarms BERT Direction Data patterns Loopbacks Local Remote - generation Remote detection Loop.</p> <p> Majority vote error Correction Soft configurable options Subrate framing format Subrate timeslot number Data rate Interface Stop bits Data bits Parity CTS control CTS delay RLSD/DCD Transmit clocking BER test Local loopback Loopback generation Loopback detection Majority vote error</p>	<p>10 Female 8-pin RJ-48 ITU-T V.24/28, RS232C DCE - full duplex</p> <p>Transparent Software selectable per port: internal or external 2.4, 4.8, 9.6, 14.4, 19.2, 28.8, and 38.4 Kbps</p> <p>V.14 or proprietary Software selectable per port: 1 or 2 Software selectable per port: 5, 6, 7, or 8 Software selectable per port: none, odd, even, space, or mark 0.3, 1.2, 2.4, 4.8, 9.6, 14.4, 19.2, 28.8, and 38.4 Kbps</p> <p>Tied to DTR Software selectable per port: permanently on, permanently off; tied to RTS Software selectable per port: immediate, 30, 60 or 100 milliseconds Software selectable per port: permanently on, follows remote RTS (drop on receipt of IDLE or CGA RED)</p> <p>Integral Toward DTE or toward network Mark, space, 1010, 1 : 7, 511 test pattern. 2047 test pattern</p> <p>Toward DTE or toward network Inband, latching. DDS format at CSU, DSU or OCU-DP Inband, latching and non-latching DDS format for OCU loop, CSU loop and DSU Optional automatic ten (10) minute timeout</p> <p>Available for DS0-A ports operating at 9.6Kbps or less, triggers EER alarm when specified threshold is exceeded Per port X.50, V.14, DS0-A, DS0-B with 5, 10, or 20 divisions per DS0 1 thru 20 depending on subrate framing format 2.4, 4.8, 9.6, 19.2, 28.8, or 38.4 Kbps Synchronous or asynchronous 1 or 2 (async data only) 5,6,7 or 8 (async data only) None, odd, even, space, or mark (async data only) Permanently on, permanently off, follow local RTS 0.30, 60, or looms On (local), follow remote RTS (local/remote) Internal or external (sync data only) Active or inactive, direction, pattern None, toward DTE, toward network Off, at CSU, at DSU, at OCU-DP Disable, enable, enable time out None, 10e-3, 10e-4, 10e-5, 10e-6 or 10e-7</p>
Standards Compliance	<p>AT&T TR54075, Telcordia TA-TSY-000055, Telcordia TR-TSY-000476, EN 50082-1 10/12/9, EN 60 950/A1 EN 61 000-4-4, EN 61 000-4-5, ENV 50 140 1993, ITU-T V.24/V28, ITU-T X.50 Division 3 (note: does not support 600bps data) ITU-T V.14 v EIA RS232-C</p>	
Product Numbers	822060	10 port V.24/V28, RS232
Physical Specification	Card height	8 inches (20 cm)
	Card width	15/16 inches (2.35cm)
	Card depth	71/2 inches (18.75cm)
	Power consumption	4.6 Watts
	BTU/hr	15.7
	Operating temperature	0 to 50C, 32 to 122 F
	Storage temperature	-20 to 80 C, -4 to 176 F
	Humidity	0 to 95% humidity, non-condensing
IMACS Platform	IMACS Chassis	891630 IMACS 600, 891830 IMACS 800, or 891930 IMACS 900
	Control CPU card	880460 Bus-connect or 880360 Cross-connect CPU
	System Host Code	3.6.y and 6.0.y or later
	Interface card	
	Release 3.x.y	892060
	Release 6.x.y	892260, 892360 and 892460.
	Power Supply Options	All AC and DC power supplies supported.