

Telemetry Transmitter (96281)

Summary




The Spacelabs Healthcare AriaTele™ Telemetry Transmitter (96281) provides a range of choices for ambulatory patient monitoring, from basic ECG to multiparameter with a liquid crystal display (LCD). The color display allows a clinician to assess ECG and/or SpO₂ signal quality while at the patient's side.

The design is sleek and smooth for patient comfort, as well as waterproof and durable.

Note:

Not all products are available in all locales. Check with your local Spacelabs Healthcare representative.

Features

	96281-A ECG	96281-B ECG with Display	96281-C ECG and SpO ₂ with Display
			
Leads transmitted	II and V (narrowband) / 7 from 4 vectors (wideband)		7 from 4 vectors
Leads shown on display	N/A	I, II, III, and V	
Electrode configuration	individually replaceable DIN standard safety lead wires		
Lead fault indicator	yellow LED flashes for lead fault		
Pacemaker detection	detects pacemaker pulses of +/- 0.5 mV with pulse widths of 0.2 to 2 ms and +/- 1.0 mV at 0.1 ms pulse widths		
Pacemaker rejection	pulse period of width 0.1 msec, amplitude up to 700 mV (2 mV, 10 mV, 300 mV, and 700 mV tested), with an overshoot of less than or equal to 4 msec		
Remote record button	yes		
Dimensions (H x W x D)	126 x 71 x 21 mm (4.96 x 2.8 x 0.83 inches)	126 x 71 x 22 mm (4.96 x 2.8 x 0.86 inches)	131 x 71 x 22 mm (5.16 x 2.8 x 0.86 inches)

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	96281-A ECG	96281-B ECG with Display	96281-C ECG and SpO ₂ with Display
Weight	106 g (3.739 oz.) without grouper, batteries, leads	117 g (4.127 oz.) without grouper, batteries, leads	127 g (4.479 oz.) without grouper, batteries, leads, SpO ₂ cable
Display size (H × W)	N/A	35 x 47 mm	
Display type	N/A	color LCD	
ECG display	N/A	heart rate, ECG waveform, lead indicator, pacemaker flag	
SpO₂ display	N/A	N/A	O ₂ saturation, signal quality, pulse rate, pulse waveform
Water resistance	waterproof; meets EN 60529 IPX7		
Output power	<5 mW EIRP		
System ECG Signal Range	+/- 4 mV		
DC offset	up to ±300 mV		
Noise	≤50 μV peak-valley		
CMRR	>85 dB		
QRS detection	detects QRS complexes with durations of 40 to 120 ms and amplitudes of 0.5 to 5 mV		
Defibrillator protection	meets IEC 60601-2-27		
System Resolution	4 μV per LSB referred to input		
Input impedance	>10 MΩ differential at 10 Hz		
Gain accuracy	±5%		
Accuracy of signal reproduction	meets IEC 60601-2-27		
Signal bandwidth	0.05 to 40 Hz		
SpO₂ measurement accuracy	N/A	+/- 3.25% (at 70 to 100%)	
Battery types	two AA/LR6 alkaline or two NiMH batteries		
Battery Life, typical alkaline batteries (hours)	>72	>72 for ECG; >24 for ECG and continuous SpO ₂	
Battery status indicators	yellow battery indicator LED flashes when the battery level is low		
RF signal shutdown	1.9 VDC ±0.1		

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Options

Option Groups	Option Identifier	Description of Option	Availability
	-A	ECG	-A
	-B	ECG + display	-B
	-C	ECG + display + SpO ₂	-C
Bands	32	G band (433.0625 to 434.7875 MHz)	-A32N, -B32N,
	05	Q band (608 to 614 MHz)	-A, -B, -C
	09	T band (1395-1400 MHz) and V band (1427-1431.5 MHz)	-A, -B, -C
Channels	N	narrowband (25 kHz bandwidth)	-A, -B
	W	wideband (50 kHz bandwidth)	-A, -B, -C
Leadwires	I	5 leadwires IEC	-A, -B, -C
	J	5 leadwires AHA/AAMI	-A, -B, -C

Relationship to Other Systems

The 96281 telemetry transmitter is directly related only to Spacelabs Healthcare monitoring systems. Data collected by the transmitter may be interfaced from the monitoring system to a hospital clinical information system.

Compatibility

The 96281 telemetry transmitter is compatible with the 90478 Digital Telemetry Modular Receivers** and related Ultraview SL™ bedside and central monitors.

Refer to the *Patient Monitoring Operations CD* (P/N 084-1101-xx) and to the *Spacelabs Healthcare Service CD* (P/N 070-0700-xx) for information relating to the 90478 receiver and digital telemetry systems.

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Classification

MDD

EN 60601-1

Class IIb

Type CF applied part,
defibrillator proof

Rated for continuous use

Environmental Requirements

Operating

Temperature — 0° to 50° C
(32° to 122° F)

Humidity — 95% (noncondensing)

Altitude — 0 to 3,000 m
(0 to 9,840 feet)

Storage

Temperature — -40° to 75° C
(-40° to 167° F)

Humidity — 95% (noncondensing)

Altitude — -152.4 to 12,192 m
(-500 to 40,000 feet)

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Accessories

Refer to the *Spacelabs Healthcare Supplies and Accessories Catalog* for a complete list of available ECG lead wires and electrodes and SpO₂ sensors from Spacelabs Healthcare.

Transmitter Pouch P/N 015-0500-02

DIN Standard Safety ECG
Lead Wire Set (5 lead),
61 cm (24-inch) snap P/N 012-0285-01 (AHA/AAMI)
P/N 012-0328-00 (IEC)

DIN Standard Safety ECG
Lead Wire Set (5 lead),
61 cm (24-inch) pinch P/N 012-0286-01 (AHA/AAMI)
P/N 012-0327-00 (IEC)

TruLink[®] finger sensor,
adult, reusable P/N 015-0660-00

TruLink foam sensor,
adult, single-patient use P/N 015-0662-00

TruLink vinyl sensor,
adult, single-patient use P/N 015-0663-00

Vinyl sensor, pediatric,
single-patient use P/N 015-0665-00

TruLink cloth sensor,
neonate, single-patient
use P/N 015-0667-00

NELLCOR OXIMAX
DS-100A finger sensor,
adult, reusable P/N 690-0003-01

SpO₂ adapter cable P/N 700-0014-00

Leadwire Grouper
5 WAY, AHA,
labelled P/N 706-0184-00

Leadwire Grouper
5 WAY, IEC, labelled P/N 706-0185-00

Documentation

96281 Telemetry System Documents CD-ROM
(P/N 084-2201-xx)

Bedside, Central, and Telemetry Systems Operations
Documents CD-ROM
(P/N 084-1101-xx)

Spacelabs Healthcare Service Documents CD-ROM
(P/N 084-0700-xx)

Spacelabs Healthcare Supplies and Accessories Catalog
www.spacelabshealthcare.com

Regulatory Approvals

Medical telemetry spectrum allocations may be assigned to frequencies already allotted to other priority users. This means that telemetry operations may be exposed to radio frequency interference that may disrupt or impede telemetry patient monitoring. Additionally, medical telemetry spectrum allocations may be changed by government action. Spacelabs Healthcare accepts no responsibility for such changes, including the possibility that the product may not operate in the modified permissible spectrum ranges other than those expressly set forth in Spacelabs Healthcare's published product data sheets. Spacelabs Healthcare cannot and does not guarantee interference-free telemetry operation.

Operation of this equipment in the U.S. Wireless Medical Telemetry Service (WMTS) bands requires coordination and registration with the FCC designated frequency coordinator.

96281 Telemetry Transmitters operating in the Wireless Medical Telemetry Service (WMTS) band are approved by the FCC (47CFR Part 95) and Industry Canada (RSS-210).



CSA certified. Meets CSA C22.2 No. 601.1 and UL 60601-1 for electrical safety.



The medical telemetry system is CE marked in accordance with the Medical Device Directive, 93/42/EEC.



The medical telemetry system is CE marked in accordance with Telecommunications Terminal Equipment (RTTE) Directive, 99/5/EC.

Consult your local Spacelabs Healthcare sales representative for available frequency bands.

Ultraview SL, TruLink, and AriaTele are trademarks of Spacelabs Healthcare. Other brands and product names are trademarks of their respective owners.