

Comparison of Applied Instruments Satellite ID Meters

Which Applied meter is right for you? If your primary work is:

- DIRECTV, the AI Turbo S2 is the best choice
- Dish Network, Bell TV, Shaw Direct, the Super Buddy is a fine choice, but the AI Turbo S2 is the best choice with a better battery, faster processing & lock, and more storage
- C band video broadcast satellite reception (i.e. satellite antenna farms at CATV headends), the AI Turbo S2 and the VSAT 7850 are both fantastic choices
- VSAT / Mobile Satcom / Broadband / Data Terminal applications, the VSAT 7850 is the best choice
- Hughes (Ku Band or Jupiter Gen 4 Ka Band) the VSAT 7850 is the best choice
- Commercial Low Ku Band (i.e. uplink trucks, teleports) the AI Turbo S2 is fine, but the VSAT 7850 is the best choice
- DBS / DTH outside of North America, the VSAT 7850 is the best choice



	SUPER BUDDY™/ SUPER BUDDY 29™	AI TURBO S2	VSAT 7850
FEATURES			
Satellite ID verification	YES	YES	YES
Auto scan satellite ID	YES	YES	YES
Field Guide database of all regional transponders	YES	YES	YES
Manual tune to custom transponders	YES	YES	YES
Store custom satellites & transponders in meter		YES	YES
Audible tone for signal lock or peak	YES	YES	YES
Azimuth/elevation/skew calculations	YES	YES	YES
U.S. zipcode lookup of lat/long	YES	YES	YES
Canadian postal code lookup of lat/long	YES	YES	YES
Zipcode lookup of 1st Gen WildBlue spot beams	YES	YES	
Dish Network limit scan thresholds	YES	YES	YES
Built-in time and date clock		YES	YES
Tuning resolution	4KHZ	4KHZ	4KHZ
Frequency Range	950-2150 MHZ	250-2150 MHZ	900-2150 MHZ
BATTERY			
Type	NI-MH	LI-ION	LI-ION
Voltage (nominal)	7.2V	11.1 V	11.1 V
Rating	3600 MAH	4400 MAH	4400 MAH
Capacity (Watt hours)	25.92 W-HR	48.84 W-HR	48.84 W-HR
Universal AC charger (100VAC to 240VAC)	YES	YES	YES
12VDC vehicle adapter	YES	YES	YES
Quick charge	YES	YES	YES
Easily replaceable		YES	YES
Operates while charging	YES	YES	YES
Battery level & charge status monitoring	LIMITED	COMPREHENSIVE	COMPREHENSIVE
PHYSICAL			
Field replaceable F connectors	YES	YES	YES
Rugged case with rubber shock guards	YES	YES	YES
USB computer interface for firmware updates	YES	YES	YES

LNB POWER

13V, 18V LNB power	YES	YES	YES
21V, 29V LNB power	YES (SUPER 29)	YES	YES
DiSEqC and 22kHz switch control	YES	YES	YES

SIGNAL COMPATIBILITY

DVB-S – QPSK (legacy video std)	YES	YES	YES
DSS / DIRECTV Legacy – QPSK	YES	YES	YES
Digicipher 2 – QPSK & OQPSK (Shaw Direct, some C-Band)	YES	YES	
Turbo – QPSK/8PSK (Dish Network HD, Shaw Direct HD, Bell TV HD, Gilat)	YES	YES	
DVB-S2 – QPSK/8PSK CCM (modern broadcast std.)		YES	YES
DVB-S2 – QPSK/8PSK/16APSK/32APSK CCM			YES
DVB-S2 – QPSK/8PSK/16APSK/32APSK ACM / VCM (VSAT - Hughes, iDirect, etc.)			YES
DIRECTV 99 & 103 Ka Signal Level	YES	YES	YES
DIRECTV 99 & 103 Ka Quality Estimate (No lock)		YES	

SWITCH CONTROL

22kHz	YES	YES	YES
DiSEqC	YES	YES	YES
Dish legacy and DishPro	YES	YES	YES
FSK (for DIRECTV SWM Sat/Transponder selection)		YES	

MEASUREMENTS

Signal Level (dBm, dBmV, dBμV)	YES	YES	YES
Signal Quality (IRD, C/N, Eb/No, Es/No)	YES	YES	YES
IRD / IDU Voltage	YES	YES	YES
LNB Current Draw	YES	YES	YES
LNB LO Frequency Drift	YES	YES	YES
Post-FEC BER	YES	YES	YES
Pre-FEC BER		YES	YES
Framing errors		YES	
PER			YES
Symbol Rate Error		YES	YES
DIRECTV B-Band without B-Band Converter		YES	

TESTS

Proof of Performance	YES	YES	YES
Limit Scan for key transponders	YES	YES	YES
Constellation Screen (I and Q values)	YES	YES	YES
Spectrum Screen	YES	YES	YES
Spectrum with reference line		YES	YES
Spectrum normalized to reference (w/cable loss)		YES	YES
Noise Scan	YES	YES	YES
IRD DiSEqC command reader	YES	YES	YES
Displays cross-pol value from Hughes Ku Band modems	YES	YES	YES
DIRECTV SWM system receiver utilization		YES	
Multi-satellite screen (DIRECTV SWM only for now)		YES	

DATA STORAGE / UPLOAD / PRINTED REPORTS

Proof of Performance Scan	YES	YES	YES
Limit Scan	YES	YES	YES
Spectrum Scan		YES	YES
Flash Memory Storage for saved Scans	64KB	256KB	256KB
Date stamps on saved Scans	YES	YES	YES
Time stamps on saved Scans		YES	YES