



DREAM Satellite Modem DAMA Ready,
 SCPC/DAMA/ABOD, IP, (Router)
 RMOD-DREAM-2IP4-j8



- ALL IP based, SCPC, always SINGLE HOP modems. Can be used as either:
1. A Stand alone SCPC, Point to Point DREAM modem with to **65W BUC power!** or A “TDM” based **DREAM Super** Hub mode, replacing many standard DREAM modems at a HUB, significantly lowering CAPEX !
 2. Improved satellite efficiency with DAMA (Demand Assigned Multiple Access) based “SCPC” modem, with a central control HUB, significantly lowering OPEX with: ABOD (Adaptive Bandwidth on Demand) WITH SUPPORT FOR:
 3. Multiple STAR or MESH networks in the same DREAM modem based network!
 4. HUB based network status MAP display with any site’s GUI status/control.
 5. Up to 3dB lower Eb/No than competitor’s modem MODCODs (16QAM/LDPC).

Model	CODING Selectable	MOD,	DATA Rate	Max # of RX channels options:	DAMA/ABOD Option Available?	IP and E1 support?	ROUTER Function
			8Kbps to:				
DREAM™ Stand alone	TPC	To 16QAM	13.5Mbps*	1, 2, 4, 5, 6, 8	YES	IP only	YES
	LDPC	To 16QAM	22Mbps	1, 2, 4, 5, 6, 8	YES	IP only	YES
DREAM-Super™ Hub based	TPC	To 16QAM	13.5Mbps*	Up to 16	YES	IP only	YES
	LDPC	To 16QAM	22Mbps	Up to 16	YES	IP only	YES
EXTREME™ Stand alone	TPC/ LDPC	TO 64QAM	155Mbps	1	NO	4 x E1s/IP	NO

The Dream modem is ideal for multiple 2-way services (i.e. MESH) and for all general purpose SCPC operation for one to multi-STAR/MESH, DAMA based, small to large networks, with carrier rate optimized to match real time IP traffic. Always only a SINGLE hop whether MESH or STAR network configuration ie lowest possible latency!.

Order Examples: RMOD-DREAM TPC-RX Channels (1, 2 or 4) BNC -OPT Card # Power Option - j8
 RMOD-DREAM-TPC1 -110/220VAC-1-j8-

LDPC 24V dc or 48V dc One Option cards 1-8,

Coding Option TPC does TPC only, LDPC does LDPC or TPC User selectable)

Dream Modems include built in STSR + one option card slot

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#	Option Card Definitions (IF=70 or 140M) or L band)			
1	8RO-IF	8 channel receive channels in one card	12MBps (TPC) or 20Mbps (LDPC)	IF 70M only
2	QRO-L	4 channel receive channels in one card	12MBps (TPC) or 20Mbps (LDPC)	L band only
3	STSR	Single Transmit / Single receive but generally not used for add-on cards.	12MBps (TPC) or 20Mbps (LDPC)	IF 70M or L
4	ST4R	Single Transmit/four receive	12MBps (TPC) or 20Mbps (LDPC)	IF 70M or L
5	DVB-S2	Receive only standard DVB-S2 card no ACM at this time, and to 8PSK supports 45MSPS	45MSymbols per sec. /LDPC New model in 2014Q4 will support <u>ACM and to 32APSK!</u> also to 45MSPS	L band only
6	ESA	Embedded Network Spectrum Analyzer		
8	HSR	HSR High Stability Reference Clock	Inc standard on Dream-LDPC model)	

DAMA OPTION has:

A hub that monitors and controls the whole network, and is controlled by software running on a server. The HUB broadcasts a narrow band (24/48 Kbps), composite TDM Carrier, using a shared Slotted Aloha channel, used to control network DAMA contention. The network uses a: "Packet Switched Multiple Access"(PSMA) system architecture, with Adaptive Bandwidth-On-Demand (ABOD). Applications using MCPC mesh connectivity are particularly suitable for real time traffic such as: voice and multicasting videoconference, SCADA, and internet networking.

Specifications for RADITEK DREAM Satellite Modem:

IP Features and Routing Function	Outbound Carrier
Intranet/Internet, Multicast, TCP Acceleration, VLAN, DNS Caching	Proprietary TDM with PSMA, or SCPC/MCPC
Supports standard & Customized QoS traffic Prioritization Protocols: TCP, UDP, RIP, ARP, DHCP, ICMP, IGMP, Telnet, PPP, FTP, HTTP, SMTP, and SNMP	BPSK; QPSK, 8PSK, 16QAM Modulations
Interface	Turbo Product Code (TPC) rate: ~1/2, ~3/4, ~7/8
RJ-45, 10/100 Base T Ethernet Interface	LDPC Code rates: 1/2, 2/3, 3/4, 4/5, 8/9
RS-232 Asynchronous Serial Interface to ACU	
AC Power, IEC-320 Interface	Carrier Data Rate 8 Kbps to 13.5 Mbps (TPC)
85-264 VAC 47-63Hz, 150W	Carrier Data Rate 8 Kbps to 22 Mbps (LDPC)
-48VDC @ 3.5A; 24V options	1.20 or 1.30 Carrier roll off factors
Mechanical	Inbound Carrier
Dimensions: 43 x 286 x 432mm Rack Mount Unit	SCPC / MCPC with ABOD for IP traffic
Weight: 4 Kg	BPSK, QPSK, 8PSK, 16QAM Modulation
Environmental	Turbo Product Code rates: 0.72, 0.79, 0.87
Operating temp.: 0 to +45°Centigrade	LDPC Code rates: 1/2, 2/3, 3/4, 4/5, 8/9 Note: LDPC option also includes selectable TPC
Storage temp.: -30 to +70°Centigrade	Inbound Carrier rate adaptable to match actual site traffic

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Specifications for RADITEK DREAM Satellite Modem:

Humidity: Up to 95 % non-condensing	Spacing Options: 1.20 or 1.30
RECEIVE IF interface	TRANSMIT IF Interface
Receive: 950-1850 MHz, L-band with 1 KHz steps; +24 VDC @ 0.3A and 10 MHz	Transmit: 950-1850 M, L-band with 1 KHz steps +24 VDC @ 2.7A (65W) for BUC and 10 MHz ref.
Reference @ 5 dBm at 5 x 10E-8	Standard Reference @ 5dBm at 5 x 10E-8
Connector: Type F, BNC or N (f) 75Ω.	Connector: Type F, BNC or N (f) 75Ω.
Level: -75 to - 35 dBm	Level: -45 to -0 dBm in 0.5 dB steps
Threshold Spec for Eb/No=1E-9 BER:	Additional OPTIONS:
0.718 TPC; 4.5-BPSK/QPSK;7.4dB-8PSK; 8.5dB-16QAM	
0.790 TPC; 4.5-BPSK/QPSK;7.5dB-8PSK; 8.5dB-16QAM	ESA Embedded Network Spectrum Analyzer
3/4 LDPC; 3.2-BPSK/QPSK;6.3dB-8PSK; 7.3dB-16QAM	HSR High Stability Reference Clock
4/5 LDPC; 3.5-BPSK/QPSK;6.7dB-8PSK; 7.7dB-16QAM	AES: Encryption option

Ideal for working with and tracking ROCKHILL's IOTM (Internet on the move) antennas
Contact Rockhill for entire solution, incl.: C, X, Ku, Ka BUCs, TRANSCEIVERS, Antennas (tracking/flyaway (Carbon fiber reflector), Manpack and large steerable/trackable antennas, to >16m AND our Internet on the move tracking antennas