



## RMOD-DREAM SUPER DAMA/SCPC/Router/ Satellite (to) 4 channel modem



- IP ONLY, P2P or REMOTE in a STAR or MESH NETWORK
- HUB Supporting Full DAMA, ABOD

The Highest Performance RADITEK RMOD-DREAM-SUPER™ modem is (in Stand-Alone Mode), an IP-SCPC /Router /Satellite modem (2U high), ideal for use as a Standalone SCPC network HUB, OR with an added NMS/Server at a designated control HUB (located anywhere in the footprint), *supports FULL DAMA/ABOD* (Demand Assigned Multiple Access / Adaptive Bandwidth On Demand), giving up to almost 100% satellite efficiency.

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

- Supports Modulations of: BPSK, QPSK, 8PSK and 16QAM
- Never more than a single hop in STAND ALONE or Network (MESH or STAR) mode.
- Standard unit has an embedded Router, header compression, SNMP and TCP acceleration.
- Capable of both static and dynamic internet routing
- Replaces 4 or more single modems; Multiple Modems can be combined at a single, high/concentrated traffic volume HUB.
- Ideal for SCADA, Bank ATM, any IP based network, in STAR and/or MESH configurations. ABOD/DAMA is the most efficient return channel for DVB-S2 and broadband networks.
- Modem has WEB GUI with traffic statistics
- Optional 1+1 redundancy (does not need separate protection switch)
- Built-in Real time network control signaling

**Part Number** RMOD-DREAM SUPER (Coding type TPC . LDPC) - 4 slots for option cards) - **Power Option - j8**  
**Order Examples:** RMOD-DREAM SUPER TPC- -3111- 110/220VAC-j8-  
 LDPC- option card 3,1,1,1 (STSR, 8RO, 8RO, 8RO) 24V dc or 48V dc  
 Coding Option: TPC does TPC only, LDPC does LDPC or TPC User selectable)  
**Dream Super Intelligence is all contained within up to 4 option cards**

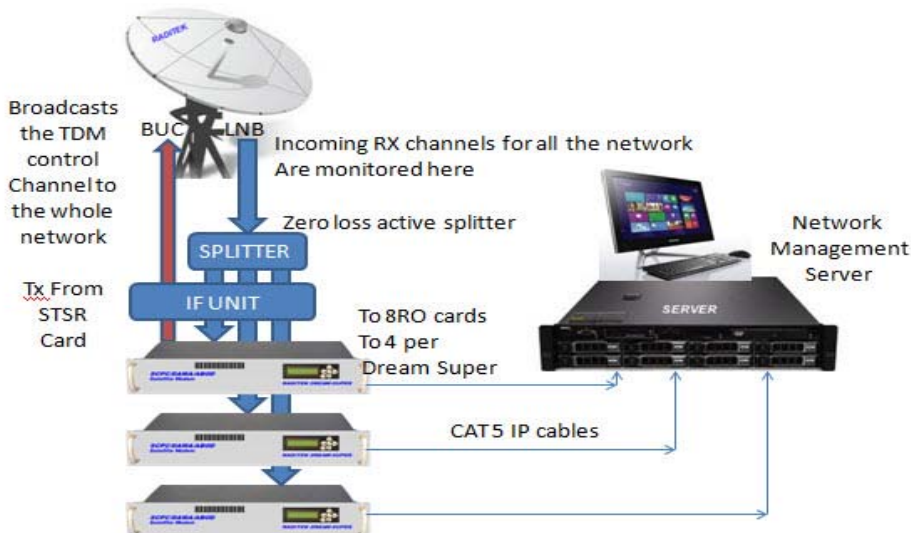
## *RMOD-DREAM SUPER™ DAMA/SCPC/Router/ Satellite (to) 4 channel modem*

Option Card Definitions (IF=70 or 140M) or L band) Each Dream-Super Modem has FOUR MODEM CARD SLOTS. (up to 4 channel cards) If DAMA option is needed, a single STSR card is needed for network signaling.				
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		
7	AES	Encryption option		
8	HSR	HSR High Stability Reference Clock	Standard on Dream-LDPC model)	

The **RMOD-DREAM-SUPER™** High Performance, IP Modem is suitable for multiple 2-way services and is ideal for all general purpose SCPC HUB operation (**replacing many separate modems at great cost savings**) and multiple STAR/MESH DAMA based networks.

The DAMA system uses an on-Demand, in-bound, Composite TDM Carrier, using Contention Access, Shared Slotted Aloha (CSC-IB), using only 24/48 Kbps for initial network entry and to initiate DAMA activation for SCPC / MCPC Inbound Carrier for IP traffic services. The network uses **Packet Switched Multiple Access** (PSMA) with Adaptive Bandwidth-On-Demand (ABOD). Application in MCPC (Multi-channel) mesh connectivity are particularly suitable for real time traffic such as **voice and multicasting videoconference (as lowest, single hop) latency**.

When used in the Networking Mode, there are efficient simultaneous links to multiple sites including: Network hub, Mini hub and Remotes. The ability to connect (with ONE HOP) to two or more central sites allows traffic routing between corporate branches and headquarters directly and traffic bypasses the hub.



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<b>Specifications for RADITEK RMOD-DREAM-SUPER DAMA/SCPC/Router/Satellite Modem:</b>	
<b>IP Features and Routing Function</b>	<b>Outbound Carrier</b>
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
<b>Interface</b>	
RJ-45, 10/100 Base T Ethernet Interface	Turbo Product Code (TPC) rates: ~1/2, ~3/4, ~7/8
RS-232 Asynchronous Serial Interface to ACU	LDPC Code rates: 1/2, 2/3, 3/4, 4/5, 8/9
AC Power, IEC-320 Interface	Carrier Data Rate: 16 Kbps to 12 Mbps (TPC)
100-240 VAC 50/60 Hz, 160W	Carrier Data Rate: 16 Kbps to 20 Mbps (LDPC)
	1.20 or 1.30 Symbol Rate Carrier Spacing Options
<b>Mechanical</b>	<b>Inbound Carrier</b>
Dimensions: 89 x 448 x 483 mm Rack Mount Unit	SCPC / MCPC with ABOD for IP traffic
Weight: 9.1 Kg	BPSK, QPSK, 8PSK, 16QAM Modulation
<b>Environmental</b>	Turbo Product Code: 0.72, 0.79, 0.87 Rates
Operating temp.: 0 to +45°C Centigrade	LDPC Code: 1/2, 2/3, 3/4, 4/5, 8/9 Rates
Storage temp.: -30 to +70°C Centigrade	Inbound Carrier rate is adaptable to match actual site traffic
Humidity: Up to 95 %, non-condensing	Spacing Options: 1.20 or 1.30 Symbol Rate Carrier
<b>RECEIVE IF interface</b>	<b>TRANSMIT IF Interface</b>
Receive: 70±18MHz or 950-1850 MHz, L-band with 2.5 KHz steps	Receive: 70±18MHz or 950-1850 MHz, L-band with 2.5 KHz steps
Switched +24 VDC @ 0.3A and 10 MHz REF.	10 MHz REF. ( to BUC)
Reference @ 5 dBm, 5 x 10E-8	Reference @ 5dBm, 5 x 10E-8
Connector: Type BNC (f) 75Ω.	Connector: Type BNC (f) 75Ω.
Level: -30 to -60 dBm (70MHz)	Level: -45 to -0 dBm in 0.5 dB steps
Level: -20 to -45 dBm (L band)	
<b>Threshold Spec for Eb/No=1E-9 BER:</b>	<b>Additional OPTIONS:</b>
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 (1 x 10E-9)
4/5 LDPC; 3.5-BPSK/QPSK; 6.7dB-8PSK; 7.7dB-16QAM	AES: Encryption option
<b>Certifications: 47CFR FCC Part 16, Sub part B, Canada ICES-003 issue 4; CE EN-55022 Class A, EN 61000-3-3. EN-58024, EN-62000-4-3/5/8.</b>	

*Please remember to contact Raditek for C, X, Ku, Ka band BUCs, TRANSCEIVERS, Antennas (tracking/flyaway (Carbon fiber reflector), Manpack and large steerable/trackable antennas, to >16m AND our Internet on the move tracking antennas (Ku band IOTM, as shown on page 1/top of page).*