

## Benefits

- High performance, >6Mbps inbound channels and >135Mbps outbound
- Low Total Cost of Ownership with excellent space segment efficiency
- High adaptivity for higher availability and lower bandwidth
- QoS support for converged services with data, voice and video on the same hub
- End-to-end solutions and application-specific optimization
- Worldwide support and local offices
- Standards based: DVB-S2 and RCS with enhanced functionality



SkyEdge™ II creates new opportunities for operators and service providers with its higher performance and additional capabilities. Incorporating the latest technologies such as DVB-S2 and adaptive RCS based inbound, the total cost of ownership (TCO) is reduced. SkyEdge II VSATs provide more throughput enabling more applications and a better user experience for the end-user.

Incorporating high modulation, advanced error correction as well as highly adaptive inbound and outbound channels, lower space segment costs are achieved. Together, these make higher data rates

affordable creating new opportunities for VSAT technology. SkyEdge II delivers all the communications services that enterprises, carriers, service providers and governments require. It is a multi-service platform for voice, video and data services, based on DVB-S/S2 and RCS.

SkyEdge II goes beyond the standards and adds application-specific support incorporating Gilat's 20 year experience in the enterprise market. SkyEdge II meets present and future business objectives, providing the option to deploy communications applications in all market segments.

## Diverse Markets, Superior Offerings

### Enterprise

Gilat focuses on solutions for enterprises and industry specific applications, offering the benefits of speed, reliability, security and performance.

### National Carriers

SkyEdge II's comprehensive solution enables telecom carriers to extend communication services to remote regions quickly and economically while remaining competitive in a highly volatile market.

### Broadband and Internet Service Providers

Governmental, enterprise, SME, SOHO or consumer markets will enjoy the high performance of SkyEdge II, including advanced shared-hub functionality, Managed Private Networks and support for all size networks.

### Governments

Gilat works closely with government entities to overcome infrastructure hurdles, save money and serve their citizens' diverse communication needs such as rural telecom projects, e-post, government subsidized Internet access and other e-government services.

### High Performance

SkyEdge II enables higher inbound throughputs with inbound carriers over 6Mbps and outbound throughput of over 135Mbps. VSATs supporting higher bandwidth and higher packets-per second ensure that SkyEdge II supports future requirements as well.

### Inbound adaptivity (ICM)

The inbound ICM provides 3 dimensions of adaptivity for the inbound traffic, based on adaptive channel selection (ACS) with multiple channel rates, adaptive coding and modulation (IB-ACM) and adaptive uplink power control (AUPC).

### VoIP and Telephony Leadership

Gilat is a world leader in satellite-based rural telephony. SkyEdge II optimized VoIP telephony assures voice quality, grade-of-service and efficiency for all telephony needs. VoIP traffic receives guaranteed bandwidth for the duration of the call that minimizes jitter to deliver toll-grade quality.

### Designed for Reliability and Maintainability

Gilat designs, builds and tests equipment not only for an air-conditioned office but also for extreme conditions. With an MTBF of over 100,000 hours, SkyEdge II VSATs are designed to keep working.

Installation is easy with a simple WEB interface, whereby all operational software is automatically downloaded from the hub.

## The SkyEdge™ VSATs

SkyEdge offers a high performance, cost effective way to deliver a grand variety communications services, from interactive data to Broadband IP, VoIP and beyond.



### SkyEdge™ IP

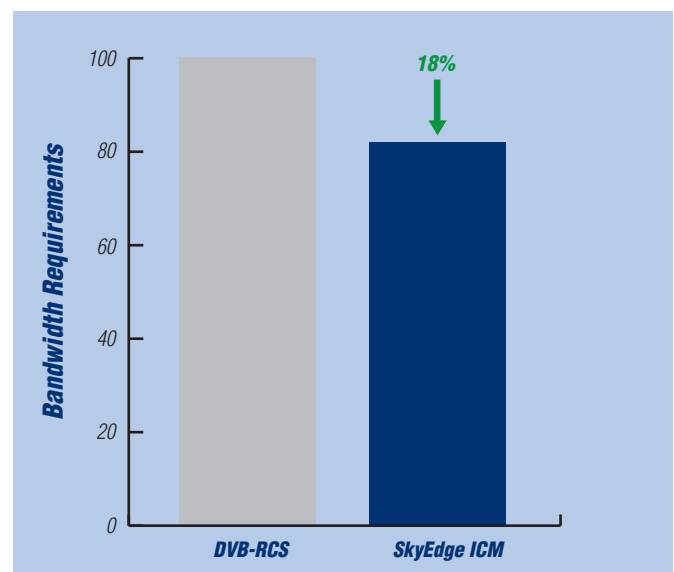
IP Router enabling interactive broadband IP, VoIP, Video and multicasting applications

### SkyEdge™ Access

Multi Service platform with expansion slots for quad LAN, FXS, WAN backup and Video card



### SkyEdge II with 8PSK and ICM Compared to Alternatives



\* Based on representative network

## Full ACM support

DVB-S2 adaptive coding and modulation ensures high availability and maximal bandwidth efficiency, taking into account maximized frame utilization, real-time traffic requirements, and total network efficiency. ACM mechanisms are tightly integrated to QoS so that as capacity changes, the correct QoS policy is maintained.

## Advanced QoS

- Support multiple services; Voice, Video and Data
- Full DiffServ based QoS support
- Managed Private Networks (MPN) partitions satellite resources for separate customers or networks

## Scalable

SkyEdge II provides scalable solutions so networks with outbound carriers as small as 256 Kbps can grow as traffic requires, supporting up to 45Mbps and 32,000 VSATs. Up to 5 satellites/transponders are supported on the same hub.

## IP Data Support

- Embedded TCP & HTTP Acceleration
- Embedded VPN with acceleration
- Embedded IP routing capabilities
- VLAN support

## Bandwidth Efficiency

New levels of efficiency can be achieved with SkyEdge II with DVB-S2 support of QPSK/8PSK/16APSK and 32APSK and can provide almost 5 bits per Hz. The inbound channel modulation is QPSK and 8PSK, for efficient inbound traffic as well as outbound.

## Market Specific Solutions

### Cellular Backhaul

SkyAbis™ is a superior solution for GSM and CDMA2000, lowering satellite costs by up to 80% over SCPC links. It transparently connects cells to the network in an efficient manner, while maintaining high quality voice and data services. SkyAbis works in shared hub environments as another service from satellite hub operators.

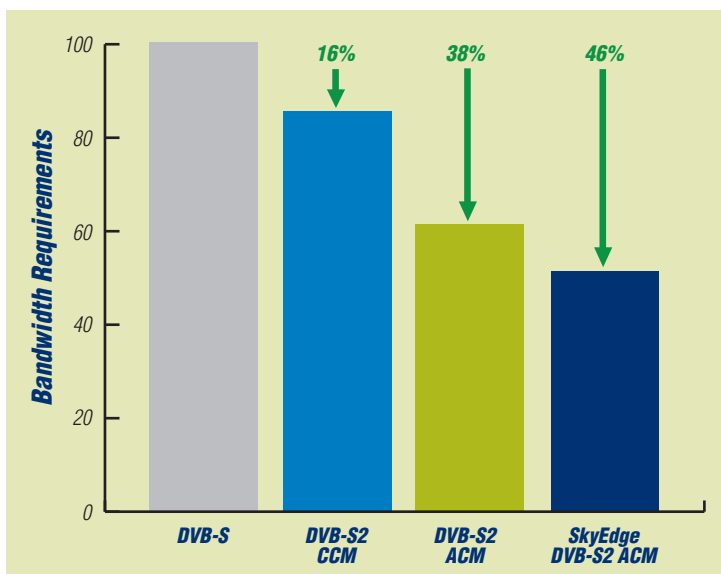
### Rapid Deployment

Gilat transportable solutions combine antenna and outdoor unit into a single package that can be mounted on a vehicle's roof or put inside a protective case, providing communications that can quickly be set up and providing communications wherever a vehicle can go.

### e-Government

Gilat has experience with elections, e-post, education and other critical government initiatives. We have helped local service providers create satellite systems supporting e-60 initiatives and also produce outsourcing services and turnkey project implementation.

### SkyEdge II with 16APSK and ACM Compared to Alternatives



\* Based on representative network, S2 CCM and S2 ACM with 8PSK modulation



## Technical Specifications

Outbound Carrier	
Standard	DVB-S/DVB-S2
Framing and Encapsulation	MPEG Normal/Short frames
Carrier rate	256Ksps - 45Msps (in 1Ksps steps)
Modulation	QPSK, 8PSK, 16APSK, 32ASPK
Coding	Viterbi & Reed Solomon (DVB-S) or LDPC & BCH
BER	Quasi Error Free as per EN302307
FEC rate (DVB-S)	1/2, 2/3, 3/4, 5/6, 7/8
FEC rate (DVB-S2)	1/4, 1/3, 2/5, 1/2, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Inbound Carrier	
Access Scheme	MF-TDMA DVB-RCS Based: RBDC, VBDC, RBGC, FCA
Channel rates	128Ksps-2.56Msps
Modulation	QPSK, 8PSK
Coding	RCS based Turbo coding FEC 1/2; 2/3; 3/4; 4/5; 6/7
Remote Outdoor Unit	
Antenna size (typical)	Ka-Band & Ku-Band: 0.55 m to 1.2 m C-Band: 1.8 m
Operating Temperature	-40° to +60° C
Humidity	Up to 100%
Linear Transmitter ODU	Ku or Ext Ku: 2W-20W. C or Ext C: 4W-20W. Ka-Band: 1W-2W
LNB	Standard TVRO type
Remote Indoor Unit	
RF Input/Output	Two F connectors, 75 Ω female
Data Interface	2 - 4 Ethernet 10/100BaseT
Operating Voltage	100-240V AC or 10-59V DC
Power consumption	Less than 25W
Security	AES-128 encryption (FIPS 197)
IP Features	
Enhanced IP features for full flexibility	RIP, IRDP, DHCP, NAT/PAT, IGMP, IP prioritization, ACL, VLAN, DiffServ, IPSec
Other Features	Bandwidth on Demand, Multiple satellite support, Multiple outbound, TCP & HTTP acceleration, Multi-Level QoS
Hub Interfaces	
RFT	L-Band or IF (optional)
LAN	100BT/GbE
NMS	
Platform	Windows Server 2003 with SQL DB, Server – Client system
Standards	SNMPv2c, XML
GIS	Visualization of a network on a geographic map
Hub Mechanical & compliances	
Dimensions	Starting from one 19" rack for Basic redundant hub
Power Consumption	AC 110/220V @ 50/60 Hz, typical 2 KVA (changes according to configuration)
Operating Conditions	-5° to + 50° C, up to 90% relative humidity
Standards Compliance	EMC - ETSI EN 300 386, FCC CFR 47, Part 15, Safety - EN 60950, Company - ISO 9001



**Why Gilat?** With 20 years in operation, customers and offices worldwide, and world class partnerships, Gilat offers innovative satellite products, services and solutions. SkyEdge II™ System is the comprehensive answer for global access to telecommunications, data and multimedia. Gilat helps enterprises, governments and carriers around the globe lower costs, improve performance and better help markets, customers and citizens.

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