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March 8, 2010

**VIA ELECTRONIC FILING**

James R. Burtle, Chief  
Experimental Licensing Branch  
Office of Engineering and Technology  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: Panasonic Avionics Corporation, Call Sign WD9XQT, File No. 0339-EX-ST-2009;  
Addition of New Antenna Type for Testing and Demonstration**

Dear Mr. Burtle:

Panasonic Avionics Corporation (“PAC”), through its attorneys, hereby notifies the Commission, pursuant to Section 5.77 of the Commission’s Rules, 47 C.F.R. § 5.77, that PAC will test an additional Ku-band transmit/receive terminal type not specifically listed in the above referenced authorization. PAC will operate up to five (5) such terminals for testing and demonstration with the eXConnect Ku-band aeronautical mobile-satellite service (“AMSS”) system under the above-referenced authorization.

The new terminal, marketed under the name “MIJET Lite,” is manufactured by Starling Advanced Communications Ltd., the antenna panel manufacturer for the Aura LE antenna authorized by the FCC in the above-referenced experimental STA and in PAC’s initial ground test STA (Call Sign WD9XQT, 0544-EX-ST-2009).<sup>1</sup> In fact, the MIJET Lite is a single-panel version of the two-panel Aura LE antenna and the same transmit/receive panel is used on both antennas. As a result, the MIJET Lite has the same performance as the Aura LE when operating at elevation angles of 25° or less (when the Aura LE shuts off its rear panel as a result of blockage from the front panel).<sup>2</sup>

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<sup>1</sup> See Attached Product Brochure, MIJET Lite Data (only).

<sup>2</sup> PAC hereby incorporates by reference the technical information submitted to the FCC regarding the Aura LE antenna. See Call Sign WD9XQT, 0544-EX-ST-2009.

Like the Aura LE antenna, the MIJET Lite terminal is fully compliant with the Commission's two-degree spacing requirements and the off-axis EIRP spectral density levels associated with routinely licensed VSATs that have been applied to mobile Ku-band terminals in similar contexts (e.g., earth stations onboard vessels (ESVs), vehicle-mounted earth stations (VMESs) and Ku-band AMSS terminals). These are the same levels applicable to PAC's aeronautical broadband operations and included in coordination agreements between its serving satellite operators and adjacent operators within +/- 6 degrees.

Because the MIJET Lite will operate with the same technical parameters as the currently authorized Aura LE antenna (i.e., same emissions designators, transmit spectrum and authorized power) and Panasonic will otherwise conform to the conditions of its existing experimental STA, operation of the new terminal is consistent with Section 5.77 of the Commission's Rules, 47 C.F.R. § 5.77.

Please feel free to contact the undersigned with any questions you may have regarding this matter.

Sincerely,

PANASONIC AVIONICS CORPORATION

*/s/ Carlos M. Nalda*

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Carlos M. Nalda  
Nathan C. Santamaria  
Squire, Sanders & Dempsey L.L.P.  
1201 Pennsylvania Avenue, N.W.  
Washington, D.C. 20004

Its Attorneys

Attachment

cc (w/ att.): Tony Serafini

*Ingenuity*

*Productivity*

*Connectivity*

*Performance*



## **MIJET Family™ Antenna Systems**

**Breakthrough Broadband  
Antenna Systems for all  
Size Aircraft**



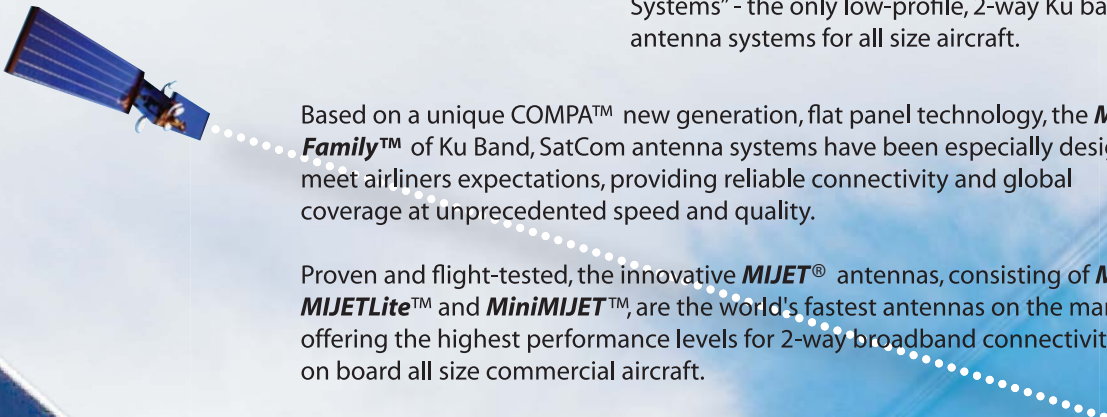
**Starling**  
Advanced Communications

# MIJET<sup>®</sup>

## Proven, Flight Tested & Ready for Delivery

Today instant and uninterrupted airborne communications is an absolute must. And it's no secret that in today's ever competitive world, airliners are seeking a fast, reliable, cost-effective broadband communication solution.

Starling Advanced Communications is a leading innovator in the field of mobile connectivity and the first company to deliver a technological breakthrough "the **MIJET Family**<sup>™</sup> of antenna Systems" - the only low-profile, 2-way Ku band antenna systems for all size aircraft.



Based on a unique COMPA<sup>™</sup> new generation, flat panel technology, the **MIJET Family**<sup>™</sup> of Ku Band, SatCom antenna systems have been especially designed to meet airliners expectations, providing reliable connectivity and global coverage at unprecedented speed and quality.

Proven and flight-tested, the innovative **MIJET**<sup>®</sup> antennas, consisting of **MIJET**<sup>®</sup>, **MIJETLite**<sup>™</sup> and **MiniMIJET**<sup>™</sup>, are the world's fastest antennas on the market, offering the highest performance levels for 2-way broadband connectivity on board all size commercial aircraft.

### **MIJET<sup>®</sup> DELIVERS:**

- Record breaking transmission and reception bit rates
- Global coverage
- Affordable in-flight connectivity at all times
- Bottom line cost savings

### **The MIJET® Edge:**

- True 2-way Broadband
- Fuselage mounted
- Compact, light-weight
- Ultra-low profile



### **MIJET® – Breakthrough, Proven Product.**

The **MIJET Family™** is the world's fastest Ku band, fuselage-mounted antenna systems for all in-flight applications. Installed on a Boeing 737 aircraft, the MIJET® antenna successfully completed a series of flight tests in a multi-user environment, setting the highest performance levels for 2-way Ku band connectivity and opening new horizons for broadband in-flight applications. The test proved MIJET®'s technological superiority and the exceptional advantages of the Ku band, creating new opportunities for airlines and service providers.

***MIJET®, the perfect solution for all airliners.***

***From internet, PDA, and e-mail, to mobile phones, VoIP, VPN and live TV, with the breakthrough MIJET® antenna systems your passengers and crew will benefit from unsurpassed in-flight connectivity and productivity, roaming the skies without losing a byte. Guaranteed.***



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# MIJET Family™ Antenna Systems

*The Perfect Solution for Every Size of Commercial Aircraft*

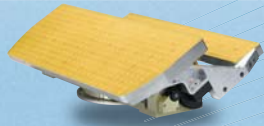
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Starling's **MIJET Family™** of antenna systems have been specially designed to suit all airborne platforms. Regardless of the size of aircraft, your entire fleet can be equipped with the most advanced antenna systems on the market. The compact, low profile, light-weight, fuselage-mounted, bi-directional Ku band **MIJET®** antenna systems can easily be top-mounted on all wide-body, narrow-body and regional commercial aircrafts.

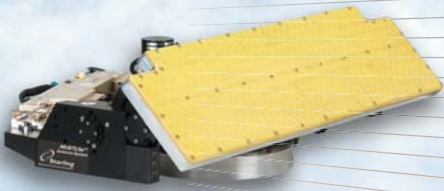
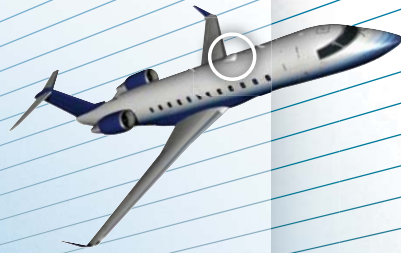
Installation and maintenance is fast and simple. With just one single cable running into the aircraft and all electronic and RF units housed inside the antenna itself, the all-in-one antenna systems provide for optimal ease of installation.

## AIRCRAFT BROADBAND SATELLITE COMMUNICATIONS

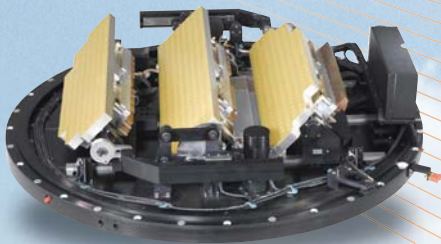
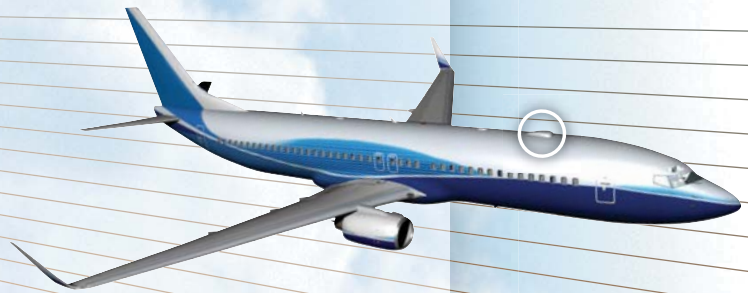




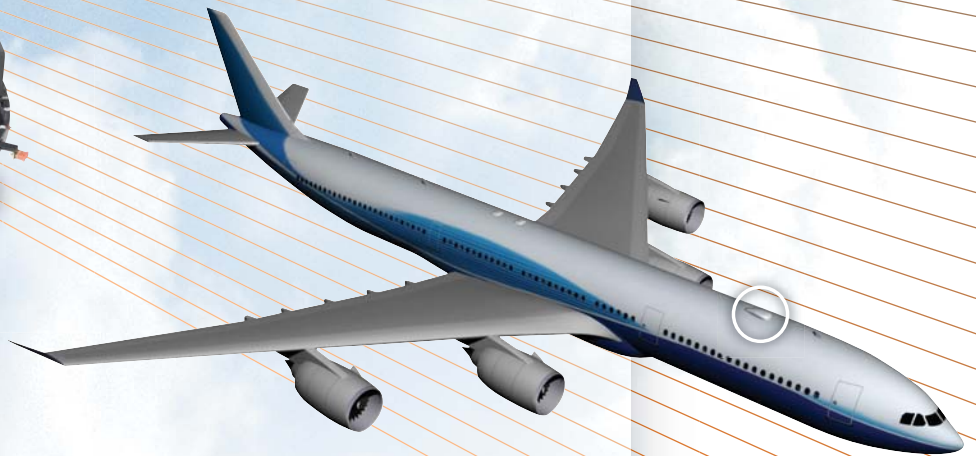
**MiniMIJET™**



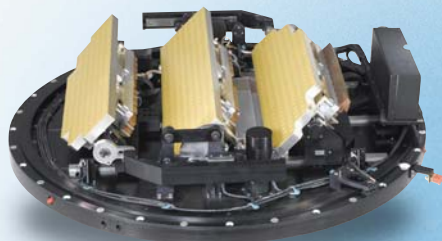
**MIJETLite™**



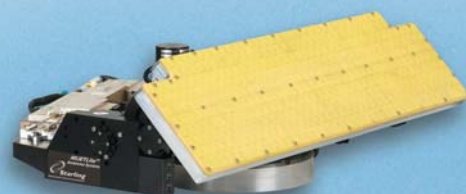
**MIJET®**



# The MIJET Family™ of Antenna Systems. Superior Flat Panel Technology at Your Service.



**MIJET®**



**MIJETLite™**

### Technical Description

#### Flat panel technology (multi panel per antenna)

- Low loss combiner network
- Wide-band radiating elements (Tx/Rx)

#### Full active coherent beam former

- Multi Rx/Tx front end - one per panel
- Active electronic polarization tracking
- Dynamic active coherent combiner

#### Physical Specifications

Antenna Diameter	30" (76 cm)
Antenna Height	6" (15 cm)
Antenna Weight	110 lb (50 kg)

#### Main Performances

Tx Frequency	14-14.5 GHz
Rx Frequency	10.7-12.7 GHz
EIRP	42 dBW
G/T	11 dB/K
Elevation Coverage	90°-10°

DO-160	✓
FCC & ITU requirements	✓

### Technical Description

#### Flat panel technology (single panel per antenna)

- Low loss combiner network
- Wide-band radiating elements (Tx/Rx)

- Multi Rx/Tx front end
- Active electronic polarization tracking

#### Physical Specifications

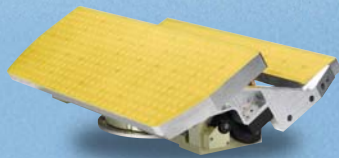
Antenna Diameter	38" (96 cm)
Antenna Height	7.5" (19 cm)
Antenna Weight	60lb (27 kg)

#### Main Performances

Tx Frequency	14-14.5 GHz
Rx Frequency	10.7-12.7 GHz
EIRP	45 dBW
G/T	>11 dB/K
Elevation Coverage	90°-0°

DO-160	✓
FCC & ITU requirements	✓





## MiniMIJET™

### Technical Description

#### Flat panel technology (single panel per antenna)

- Low loss combiner network
- Wide-band radiating elements (Tx/Rx)
- Multi Rx/Tx front end
- Active electronic polarization tracking

### Physical Specifications

Antenna Diameter	20" (51 cm)
Antenna Height	5" (13 cm)
Antenna Weight	35lb (16 kg)

### Main Performances

Tx Frequency	14-14.5 GHz
Rx Frequency	10.7-12.7 GHz
EIRP	36 dBW
G/T	>7.5 dB/K
Elevation Coverage	65°-18°

DO-160	✓
FCC & ITU requirements	✓

# MIJET Family<sup>™</sup> Antenna Systems

*Setting the Standard in Airborne Connectivity*



## **MASTERING INGENUITY**

New generation flat-panel antenna based on COMPA™ technology



## **MASTERING HARMONY**

Simple compact fit with fuselage of all types of commercial aircraft



## **MASTERING CONNECTIVITY**

2-way broadband connectivity to Internet, VPN, E-mail, PDA, Mobile Phone and Live TV.



## **MASTERING PERFORMANCE**

Global coverage: all routes and flight conditions



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[www.starling-com.com](http://www.starling-com.com)