

# HUGHES NETWORK SYSTEMS

## FIELD SERVICE BULLETIN

SUBJECT: Updated Commissioning Rules

FSB NUMBER: FSB\_071018\_01B

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SUBMITTED BY: J. Callow

APPROVED BY: D. Dostalík

CHANGE TO BE IMPLEMENTED BY:

AUTHORIZED HUGHES REPRESENTATIVE



CUSTOMER



DOCUMENTATION AFFECTED:

Training, Installation Specifications

CATEGORY:

HARDWARE



FIRMWARE



SOFTWARE



OTHER



EFFECTIVE DATE:

IMPLEMENT:



IMMEDIATELY



NEXT SERVICE CALL



OTHER: approximately 11 a.m. (EDT) October 18, 2007

COMMENTS: 1) HNS and Earthlink Customers (U.S. except Hawaii and Puerto Rico): Pages 2 – 6

2) HNS Customers in Hawaii, Puerto Rico, Central America, Caribbean: Page 7 – 8

3) Earthlink Customers in Hawaii, Puerto Rico, Central America, Caribbean: Page 9

4) Shared Gateway VAR and Agristar Customers (All Locations): Pages 10 – 14

5) DW6000 Customers (All Locations): Page 15 – 16

Installers should follow normal pointing and commissioning procedures using *DIRECWAY Consumer Installation Requirements* (Rev. K), *DIRECWAY Reflector Installation Guide* and the Field Service Order (FSO).

### REMOVED MATERIAL DISPOSITION

SHIP TO N/A

ATTENTION N/A

COMMENTS N/A

<b>HNS Customers</b>
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United States, (except Canada, Hawaii, Puerto Rico, and Virgin Islands)
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**A. HN7XXX Home and Professional Service Plans (.74m w/1w radio) \***

AMC9-21K								HZN1-23K	
AL	DC	IN	ME	ND	NY	SD	WI	AK**	
AR	DE	KS	MI	NE	OH	TN	WV	ID	
AZ	FL	KY	MN	NH	OK	TX	WY	MT	
CA	GA	LA	MO	NJ	PA	UT		OR	
CO	IA	MA	MS	NM	RI	VA		WA	
CT	IL	MD	NC	NV	SC	VT			

\* Includes new HN7000S installs and HN7000S Upgrade orders that require professional install.

\*\* Alaska will have a larger antenna requirement depending on exact location.

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**AMC9-21K (HN7XXX) Satellite Parameters**

Orbital location	83° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**HZN1-23K (HN7XXX) Satellite Parameters**

Orbital location	127° West
Transponder	23K
Frequency	1410 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

<b>Earthlink Customers</b>
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United States (except Canada, Hawaii, Puerto Rico, and Virgin Islands)
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**B. HN7XXX Home and Professional Service Plans (.74m w/1w radio) \***

AMC9-21K								HZN1-23K	
AL	DC	IN	ME	ND	NY	SD	WI	AK**	
AR	DE	KS	MI	NE	OH	TN	WV	ID	
AZ	FL	KY	MN	NH	OK	TX	WY	MT	
CA	GA	LA	MO	NJ	PA	UT		OR	
CO	IA	MA	MS	NM	RI	VA		WA	
CT	IL	MD	NC	NV	SC	VT			

\* Includes new HN7000S installs and HN7000S Upgrade orders that require professional install.

\*\* Alaska will have a larger antenna requirement depending on exact location.

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**AMC9-21K (HN7XXX) Satellite Parameters**

Orbital location	83° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**HZN1-23K (HN7XXX) Satellite Parameters**

Orbital location	127° West
Transponder	23K
Frequency	1410 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

HNS Customers
United States, Canada, Puerto Rico and Virgin Islands

### C. HN7XXX Small Office and Business Internet Service Plans (.98m w/2w radio)

G16-21K			HZN1-6K
CONUS	HI	P.R.	AK**
V.I.	Canada		

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### G16-21K (HN7XXX) Satellite Parameters

Orbital location	99° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2 ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

#### HZN1-6K (HN7XXX) Satellite Parameters

Orbital location	127° West
Transponder	6K
Frequency	1070 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

<b>HNS and Earthlink Customers</b>
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United States (except Hawaii, Puerto Rico and Virgin Islands)
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**D. DW7XXX Home and Professional Service Plans (.74m w/1w radio)\***

<b>G16-15K</b>
ID
ME
MN
MT
ND
NH
VT
WA

<b>SM5-5K</b>		
AK**	KS	OH
AL	KY	OK
AR	LA	OR
AZ	MA	PA
CA	MD	RI
CO	MI	SC
CT	MO	SD
DC	MS	TN
DE	NC	TX
FL	NE	UT
GA	NJ	VA
IA	NM	WI
IL	NV	WV
IN	NY	WY

**\* Includes new DW7000 installs and DW7000 Upgrade orders that require professional install.**

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**G16-15K (DW7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	15K
Frequency	1250 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**SM5-5K (DW7XXX) Satellite Parameters**

Orbital location	117° West
Transponder	5K
Frequency	1050 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

HNS Customers
United States (except Hawaii, Puerto Rico and Virgin Islands)

### E. DW7XXX Small Office and Business Internet Service Plans (.98m w/2w radio)

G11-5K
All States*

**\*Does not include Hawaii, Puerto Rico, Central America, and Caribbean**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **G11-5K (DW7XXX) Satellite Parameters**

Orbital location	91° West
Transponder	5K
Frequency	1050 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Vertical*
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**Note:** Requires Vertical Transmit Polarization Shim Kit (p/n 1033809) for OSIRIS 2-watt radios and 0° offset for OSIRIS-TG 2-watt radios. Refer to FSB\_050429\_01C for details.

<b>HNS Customers (Outside Continental U.S.)</b>				
Hawaii	Canada	Puerto Rico	Central America	Caribbean

### **A. HN7XXX Home and Professional Service Plans**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **G16-21K (HN7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

### **B. DW7XXX Home and Professional Service Plans**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **IA8-10K (DW7XXX) Satellite Parameters**

Orbital location	89° West
Transponder	10K
Frequency	1150 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

HNS Customers (Outside Continental U.S.)				
Hawaii	Canada	Puerto Rico	Central America	Caribbean

### C. HN7XXX Small Office and Business Internet Service Plans

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **G16-21K (HN7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2 ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**Note:** G16-13K Requires Vertical Transmit Polarization Shim Kit (p/n 1033809) for OSIRIS 2-watt radios and 0° offset for OSIRIS-TG2-watt radios. Refer to FSB\_050429\_01C for details.

### D. DW7XXX Small Office and Business Internet Service Plans

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **IA8-20K (DW7XXX) Satellite Parameters**

Orbital location	89° West
Transponder	20K
Frequency	1410 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0



<b>Earthlink Customers (Outside Continental U.S.)</b>				
Hawaii	Puerto Rico	Canada	Central America	Caribbean

### **E. HN7XXX Home and Professional Service Plans**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### **G16-21K (HN7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

### Shared Gateway VAR and Agristar Customers

#### A. HN7XXX Home and Professional Service Plans

AMC9-21K								HZN1-16K	
AL	DC	IN	ME	ND	NY	SD	WI	AK**	
AR	DE	KS	MI	NE	OH	TN	WV	ID	
AZ	FL	KY	MN	NH	OK	TX	WY	MT	
CA	GA	LA	MO	NJ	PA	UT		OR	
CO	IA	MA	MS	NM	RI	VA		WA	
CT	IL	MD	NC	NV	SC	VT			

\* Includes new HN7000S installs and HN7000S Upgrade orders that require professional install.

\*\* Alaska will have a larger antenna requirement depending on exact location.

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### AMC9-21K (HN7XXX) Satellite Parameters

Orbital location	83° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

#### HZN1-16K (HN7XXX) Satellite Parameters

Orbital location	127° West
Transponder	16K
Frequency	1270 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

<b>Shared Gateway VAR and Agristar Customers</b>
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**B. HN7XXX IA200 and IA300 Service Plans**

G16-21K		
CONUS	HI	P.R.
V.I.	Canada	

HZN1-6K
AK**

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**G16-21K (HN7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	21K
Frequency	1370 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S2 ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**HZN1-6K (HN7XXX) Satellite Parameters**

Orbital location	127° West
Transponder	6K
Frequency	1070 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

<b>Shared Gateway VAR and Agristar Customers</b>
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**C. HN7XXX IA400 Service Plans**

For these service offerings:

CON 708	CON 709	CON 710
INT 609	INT 610	INT 611
SP2 321	SP2 322	SP2 323

<b>G16-13K</b>
Continental U.S. and Canada
Hawaii
Virgin Islands
Puerto Rico

<b>HZN1-6K</b>
AK**

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**G16-13K (HN7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	13K
Frequency	1210 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Vertical*
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**HZN1-6K (HN7XXX) Satellite Parameters**

Orbital location	127° West
Transponder	6K
Frequency	1070 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – 8 PSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S2-ACM
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**Note: G16-13K Requires Vertical Transmit Polarization Shim Kit (p/n 1033809) for OSIRIS 2-watt radios and 0° offset for OSIRIS-TG2-watt radios. Refer to FSB\_050429\_01C for details.**

**Shared Gateway VAR and Agristar Customers**

**D. DW7XXX Home and Professional Service Plans**

<b>SM5-9K</b>		
AK	KS	OH
AL	KY	OK
AR	LA	OR
AZ	MA	PA
CA	MD	RI
CO	MI	SC
CT	MO	SD
DC	MS	TN
DE	NC	TX
FL	NE	UT
GA	NJ	VA
IA	NM	WI
IL	NV	WV
IN	NY	WY

<b>G16-14K</b>
ID
ME
MN
MT
ND
NH
VT
WA
Canada

<b>IA8-10K</b>
HI
Puerto Rico
Central America
Caribbean

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**SM5-9K (DW7XXX) Satellite Parameters**

Orbital location	117° West
Transponder	9K
Frequency	1130 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**G16-14K (DW7XXX) Satellite Parameters**

Orbital location	99° West
Transponder	14K
Frequency	1230 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**IA8-10K (DW7XXX) Satellite Parameters**

Orbital location	89° West
Transponder	10K
Frequency	1150 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

<b>Shared Gateway VAR and Agristar Customers</b>
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**E. DW7XXX IA200 and IA300 Service Plans**

<b>G11-5K</b>
Continental U.S. and Canada

<b>IA8-20K</b>
Hawaii
Puerto Rico
Central America
Caribbean

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

**G11-5K (DW7XXX) Satellite Parameters**

Orbital location	91° West
Transponder	5K
Frequency	1050 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Vertical*
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**IA8-20K (DW7XXX) Satellite Parameters**

Orbital location	89° West
Transponder	20K
Frequency	1410 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**Note:** G16-13K Requires Vertical Transmit Polarization Shim Kit (p/n 1033809) for OSIRIS 2-watt radios and 0° offset for OSIRIS-TG2-watt radios. Refer to FSB\_050429\_01C for details.

## HNS DW6000 Customers

### A. DW6000 Home and Professional Service Plans

SM5-14K						G16- 20K	HZN1-22K
AL	FL	MA	NH	PA	VT	ID	AK**
AR	GA	MD	NJ	RI	WI	MN	
AZ	IA	ME	NM	SC	WV	MT	
CA	IL	MI	NV	SD	WY	ND	
CO	IN	MO	NY	TN		WA	
CT	KS	MS	OH	TX		HI	
DC	KY	NC	OK	UT		V.I.	
DE	LA	NE	OR	VA		P.R.	

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

#### SM5-14K (DW6000) Satellite Parameters

Orbital location	117° West
Transponder	14K
Frequency	1230 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

#### G16-20K (DW6000) Satellite Parameters

Orbital location	99° West
Transponder	20K
Frequency	1350 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

#### HZN1-22K (DW6000) Satellite Parameters

Orbital location	127° West
Transponder	22K
Frequency	1390 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

### HNS DW6000 Customers

## B. DW6000 Small Office and Business Internet Service Plans

SM5-14K						G16- 13K		HZN1-22K	
AL	FL	MA	NH	PA	VT	ID		AK**	
AR	GA	MD	NJ	RI	WI	MN			
AZ	IA	ME	NM	SC	WV	MT			
CA	IL	MI	NV	SD	WY	ND			
CO	IN	MO	NY	TN		WA			
CT	KS	MS	OH	TX		HI			
DC	KY	NC	OK	UT		V.I.			
DE	LA	NE	OR	VA		P.R.			

**\*\* Alaska may have a larger antenna requirement depending on exact location.**

These pointing parameters can be used to manually enter on the appropriate satellite-based commissioning screen.

### SM5-14K (DW6000) Satellite Parameters

Orbital location	117° West
Transponder	14K
Frequency	1230 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

### G16-13K (DW6000) Satellite Parameters

Orbital location	99° West
Transponder	13K
Frequency	1210 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Horizontal
Transmit (Up)	Vertical*
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0

**Note: G16-13K Requires Vertical Transmit Polarization Shim Kit (p/n 1033809) for OSIRIS 2-watt radios and 0° offset for OSIRIS-TG2-watt radios. Refer to FSB\_050429\_01C for details.**

### HZN1-22K (DW6000) Satellite Parameters

Orbital location	127° West
Transponder	22K
Frequency	1390 MHz
Symbol Rate	30 Msps
Frequency Band/Modulation	Ku Band – QPSK
Receive (Down)	Vertical
Transmit (Up)	Horizontal
DVB Mode	DVB-S
DVB Program Num (User Data)	0
DVB Program Num (DNCC Data)	0