

NORSAT SUPPORTS THE BROADCAST INDUSTRY WITH ADVANCED FLY-AWAY SATELLITE TERMINALS

Norsat has been a leading provider of satellite communication solutions for a variety of commercial applications. Our high-quality fly-away satellite terminals and SNG equipment have been used by the broadcast industry for decades. Learn how Norsat supported CTV - Canada's largest private broadcaster, with the NewsLink fly-away system, which has been used heavily by the Canadian press pool for remote broadcasting and deployment throughout sandstorms, earthquake aftermaths, arctic conditions and extreme rainfall, while continuing key broadcasts. Norsat's WAYFARER™ Series are the next-generation of rugged, ultra-portable fly-away, drive-away and fixed satellite terminals that are strong enough for military but made for commercial applications. These terminals seamlessly integrate all the tools needed for remote communication with an easy-to-use interface, LinkControl satellite acquisition software and advanced capabilities.



SUMMARY

Norsat has provided high quality Satellite News Gathering Equipment and services to CTV, Canada's largest private broadcaster, since 2006. Prior to working with Norsat, CTV used a combination of Satellite News Trucks and low bandwidth satellite terminals to cover Canada's international and domestic news events, however they lacked a solution that could be easily transported overseas, provide live broadcast capabilities anywhere in the world, and reduce operating expenses.

CTV is Canada's largest private broadcaster, providing an excellent range of news, sports, and entertainment programming. Owned by Bell Media, CTV has been the most-watched television network in Canada for years. CTV broadcasts news from around the world and has a critical need to supply up to date, broadcast quality news to the more than 25 million viewers who watch the network each week.

Problem

Prior to Norsat's involvement, CTV used low bandwidth satellite data terminals to uplink stories produced by their correspondents who were covering Canada's mission in Afghanistan. Submitting a single two to three minute story often took eight or nine hours, and incurred significant satellite airtime charges. The legacy system also did not have the bandwidth required to perform live interviews with acceptable video quality. Due to the ongoing expense and lack of flexibility of this system, CTV searched for a solution that would provide the ability to send live broadcast-quality video, reduce their operating expenses, and remain easy to use, so the network could avoid sending broadcast engineer into crisis situations. The solution had to be transportable, rugged, and reliable enough to operate for several years in the challenging environment of Kandahar. The critical time scales for breaking news coverage also necessitated that the solution be supported by a technical support team who would provide 24x7x365 troubleshooting and assistance to ensure that the broadcast team never missed a story. Additionally, CTV was looking for a rental option to provide supplemental coverage when other systems were unavailable.

Solution

After a consultation with CTV on their needs and applications, Norsat proposed a 1m lightweight carbon fibre 25 Watt NewsLink Satellite News Gathering Flyaway System. Norsat provided operational training for the broadcast team and following training, the system was hand carried to Kandahar, where it was used to cover the Canadian troop deployment to Afghanistan. Over the next five years, the NewsLink fly-away was used heavily by the Canadian press pool for satellite news gathering and broadcast. In the spring of 2011, Norsat remotely upgraded the terminal at CTV's request with an SDI (BNC) digital video input with embedded audio to the MPEG-2 encoder, to enable a full digital path for both audio and video.



Norsat
International Inc.

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In 2010, one of CTV's Satellite News Trucks was critically damaged after covering a major news event in British Columbia. As this was their only satellite truck in western Canada, CTV urgently needed a solution that would fill in for the satellite truck while it was being repaired and upgraded. Following this urgent request, Norsat was able to provide another NewsLink portable terminal on short notice to meet their specifications and needs. The system was provided on a flexible rental contract to facilitate rapid deployment and enabled CTV to continue their coverage of breaking news events without significant interruption. The unit remained in use for a further four months while the satellite truck was repaired and during that time it provided news contribution capabilities to all of Western Canada. Norsat continues to provide temporary SNG flyaway rental terminals for CTV and other broadcasters as needed to support short term requirements.

In 2011, following the completion of Canada's mission in Afghanistan, the original NewsLink flyaway system was shipped back to Norsat's Vancouver facilities where it was refurbished and upgraded to support full HD. The original 25W NewsLink was rebuilt with an 80W SSPA and an MPEG4/DVB-S2 encoder/modulator to enable full High Definition capabilities. The upgraded NewsLink fly-away system was subsequently used to cover a variety of Canadian political news events in HD quality broadcast, including elections in BC and Alberta.

Results

Norsat's NewsLink SNG fly-away terminal provided the rugged, portable, cost effective solution CTV needed. The terminal was easily airline portable, enabling CTV to send it on location to Kandahar, where it was used as a primary news gathering and broadcast link for the Canadian press corps for five full years. The portability of the unit reduced CTV's reliance on Satellite News trucks, reducing the cost associated with broadcasting from remote locations, and providing a return on investment very quickly. The NewsLink™ flyaway enabled CTV to provide live broadcast quality coverage, and reduced the operating expenses via lowered access fees. The durability and reliability of the terminal was clearly evident as it remained in excellent operational form during deployment in Kandahar, requiring very little maintenance and ensuring high quality news feed for Canadian broadcasters.



The terminal was scalable and easily upgraded as CTV's needs changed. The terminal was adjusted remotely to enable digital audio while on location in Kandahar, and eventually upgraded to enable HD broadcast. Norsat can continue to modify or upgrade the terminal as needed.

Norsat's quick response to CTV's emergency satellite terminal needs enabled the network to continue covering important breaking news across Western Canada. When the network's satellite news truck was damaged in 2010, this was their only available method of broadcast and Norsat's quick provision, setup and service of a rental NewsLink flyaway was essential for Western Canadian news coverage during the truck's repair. The rapid deployment, ease of use and cost effectiveness of this rental led CTV to continue to their use of Norsat's rental service in the following months, and Norsat continues to provide satellite terminal rentals to cover a variety of Canadian events such as festivals and concerts.

The Norsat support team has been available to CTV on a 24x7x365 basis to provide trouble-shooting and operational support, ensuring every broadcast is timely and successful. Additionally, Norsat's thorough training of CTV's broadcast team enables team members to successfully operate and maintain the unit in the field, and removes the need to send broadcast engineers into dangerous situations.

'We have already put this unit through the harshest test of service in Kandahar and if its performance there was any indication we will be on the air from, well anywhere, for years to come.'

- **Dave Alexander, ENG Operations Manager, CTV**



Norsat
International Inc.

Innovative Communication Solutions

WAYFARER™ WDA120KU

1.2m Ku-Band Drive-Away

Norsat's solution for reliable and easy-to-deploy mobile communications. The solid, low weight, and low height reflector mount deploys easily for fast and reliable satellite acquisition. Whether mounted on an emergency vehicular command center or a mobile broadcast van – count on Norsat's WAYFARER™ drive-away terminals for drive-away broadband-level communications capability.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Heavy duty platform and reflector folding design
- Lightweight and durable carbon fiber reflector
- Fast, simple, intuitive one-button deployment on ACU
- From “stow-to-go” in under 5 minutes
- Automatic 3-axis acquisition
- Wide range of Norsat BUC and LNB configurations
- Includes easy-to-use IRU ACU for easy indoor operation



SPECIFICATIONS

ELECTRICAL

Reflector aperture	1.2m
Reflector material	Carbon fiber
Reflector type	Offset
Tx frequency	13.75 to 14.5 GHz
Rx frequency	10.70 to 12.75 GHz
Tx gain	42.8+20log(f/14.25) dBi
Rx gain	41.5+20log(f/12.5)dBi
Polarization	Linear
Cross polarization (On-Axis)	≥35 dB
Rx/Tx isolation	Rx ≥ 40dB Tx ≥ 85 dB
Sidelobe	First sidelobe ≤ -14 dB
Azimuth range	± 200°
Elevation range	10° to 90°
Polarization range	± 90°
Azimuth speed	0.1°/s to 6°/s
Elevation speed	0.1°/s to 6°/s
Polarization speed	0.1°/s to 6°/s
Feed interface	WR75
Power supply	AC110-230V 50/60Hz, rated 200W, 500W max

MOUNTING

Weight	≤85 Kg
Stowed size	176 cm (L) × 121 cm (W) × 42 cm (H)

ENVIRONMENTAL

Wind load - operational	72 km/h
Wind load - survival	90 km/h
Temperature	-40°C to +55°C
Humidity	0-95%
Water ingress	IP 65



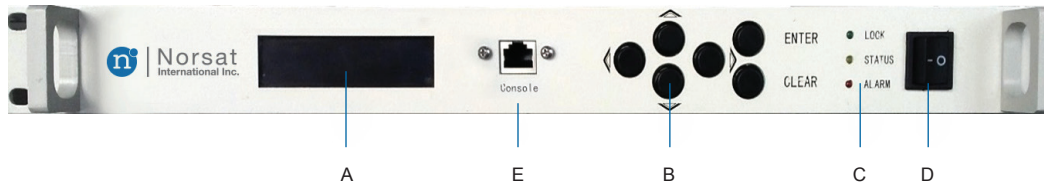
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WAYFARER WDA120KU 1.2M KU-BAND AUTO DRIVE-AWAY ANTENNA



- A - Primary ACU Display
- B - Navigation / Entry keys
- C - Status Indicator
- D - Power Switch
- E - Firmware Upgrade Console Input

HOW TO ORDER

WDA120KU-NA

AC POWER PLUG

NA = North America
UK = United Kingdom
EU = Europe
IEC = IEC

ACCESSORY OPTIONS

BUC OPTIONS

	4W	6W	8W	20W	40W
BUC	BUC-ELMTKU004	BUC-ELMTKU006	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040
BUC power supply	n/a	n/a	n/a	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	n/a	n/a	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WDA120KUMT-004	WDA120KUMT-006	WDA120KUMT-008	WDA120KUMT-024	WDA120KUMT-024

LNB OPTIONS

LNB 1000H or HS1000

IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	WDACBLIFLNF-10	WDACBLIFLNN-10	WDACBLIFLFF-10

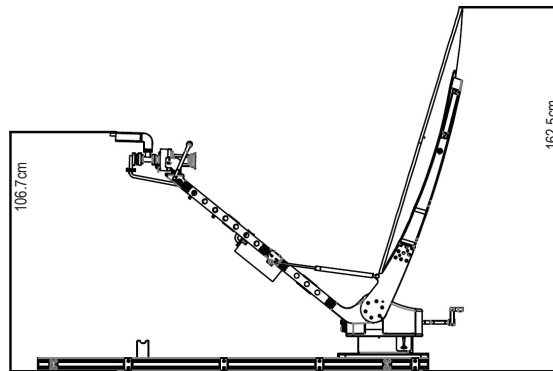
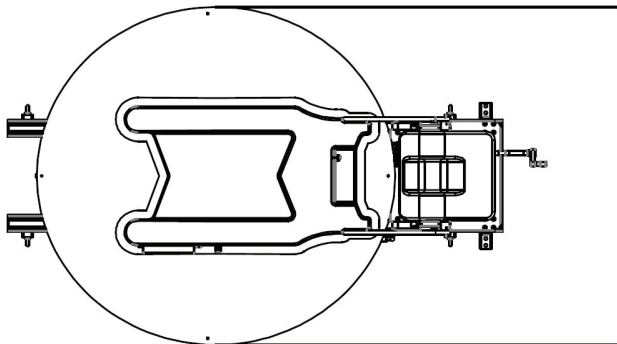
WIND DEFLECTOR

WDA120WIND

INTEGRATION

Assembly, function verification, pointing test (std product/RF packages only)

Custom integration (anything other than std product/RF packages)





WAYFARER™ WDA180KU

1.8m Ku-Band Drive-Away

Norsat's solution for reliable and easy-to-deploy mobile communications. The solid, low weight, and low height reflector mount deploys easily for fast and reliable satellite acquisition. Whether mounted on an emergency vehicular command center or a mobile broadcast van – count on Norsat's WAYFARER™ drive-away terminals for drive-away broadband-level communications capability.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Heavy duty platform and reflector folding design
- Lightweight and durable carbon fiber reflector
- Fast, simple, intuitive one-button deployment on ACU
- From “stow-to-go” in under 3 minutes
- Automatic 3-axis acquisition
- Wide range of Norsat BUC and LNB configurations
- Includes easy-to-use 1RU ACU for easy indoor operation



SPECIFICATIONS

ELECTRICAL

Reflector aperture	1.8m
Reflector material	Carbon fiber
Reflector type	Offset
Tx frequency	13.75 to 14.5 GHz
Rx frequency	10.70 to 12.75 GHz
Tx gain	46.3+20log(f/14.25) dBi
Rx gain	45.0+20log(f/12.5) dBi
Polarization	Linear
Cross polarization (On-Axis)	≥35 dB
Rx/Tx isolation	Rx ≥ 40dB Tx ≥ 85 dB
Sidelobe	First sidelobe ≤ -14 dB
Azimuth range	± 200°
Elevation range	10° to 90°
Polarization range	± 90°
Azimuth speed	0.1°/s to 6°/s
Elevation speed	0.1°/s to 6°/s
Polarization speed	0.1°/s to 6°/s
Feed interface	WR75
Power supply	AC110-230V 50/60Hz, rated 400W, 1000W max

MOUNTING

Weight	≤140kg (not including BUC)
Stowed size	249 cm (L) × 180 cm (W) × 49 cm (H)

ENVIRONMENTAL

Wind load - operational	72 km/h
Wind load - survival	90 km/h
Temperature	-40°C to +55°C
Humidity	5-95%
Water ingress	IP 65

WAYFARER WDA180KU 1.8M KU-BAND DRIVE-AWAY ANTENNA



- A - Primary ACU Display
- B - Navigation / Entry keys
- C - Status Indicator
- D - Power Switch
- E - Firmware Upgrade Console Input

HOW TO ORDER

WDA180KU-NA

AC POWER PLUG

NA = North America
UK = United Kingdom
EU = Europe
IEC = IEC

ACCESSORY OPTIONS

BUC OPTIONS

	8W	20W	40W	80W
BUC	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040	ATOMBKU080
BUC power supply	n/a	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)	PS-600ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	CABLEM+C-AT10	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WDA180KUMT-008	WDA180KUMT-024	WDA180KUMT-024	WDA180KUMT-080

LNB OPTIONS

LNB	1000H or HS1000
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IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	WDACBLIFLNF-10	WDACBLIFLNN-10	WDACBLIFLFF-10

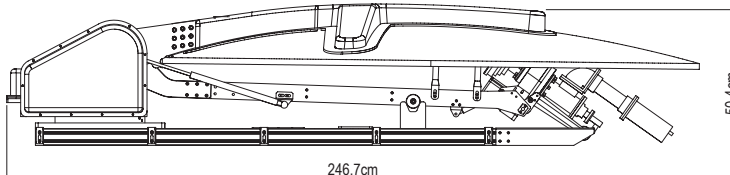
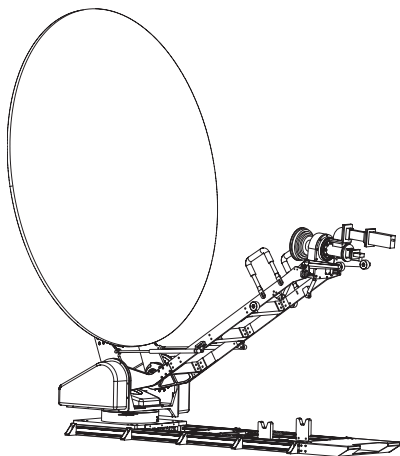
WIND DEFLECTOR

WDA180WIND

INTEGRATION

Assembly, function verification, pointing test (standard product/RF packages only)

Custom integration (anything other than standard product/RF packages)



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Innovative Communication Solutions

WAYFARER™ WFM090KU

0.9m Ku-Band Manual Fly-Away

The Norsat WAYFARER™ commercial 0.9m fly-away antenna is a fast deploying, easy-to-use, and compact SATCOM VSAT. This antenna is an excellent choice for commercial applications in various industries.

The WAYFARER 0.9m fly-away antenna offers excellent rugged and reliable satellite links for remote enterprise, energy, emergency, and media applications.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Rugged and lightweight pedestal design
- Lightweight and durable carbon fiber reflector
- Fast, simple, tool-free deployment
- 1-case packing solution
- Wide range of Norsat BUC and LNB configurations



SPECIFICATIONS

ELECTRICAL

Reflector aperture	0.9m
Reflector material	Carbon fiber
Feed configuration	Center
Tx frequency	13.75 to 14.5 GHz
Rx frequency	10.70 to 12.75 GHz
Tx gain	40.0+20log(f/14.25) dBi
Rx gain	38.8+20log(f/12.5) dBi
Polarization	Linear
Cross polarization (On-Axis)	≥35dB
Rx/Tx isolation	Rx > 35dB Tx ≥ 85dB
Sidelobe	First sidelobe < -14 dB
Azimuth range	±180°
Elevation range	0° to 90°
Polarization range	±90°
Feed interface	WR75

PACKAGING

Fiberboard case	Size: 70 cm (L) x 70 cm (W) x 35 cm (H); Weight: ≤22Kg
Ruggedized weatherproof case	Size: 85.6 cm (L) x 72.5 cm (W) x 41.6 cm (H); Weight: ≤25Kg

ENVIRONMENTAL

Wind load - operational	70 km/h
Wind load - survival	100 km/h
Temperature	-40°C to +60°C
Humidity	0-95% (20°C)
Water ingress	IP 65 (antenna only)

WAYFARER WFM090KU 0.9M KU-BAND MANUAL FLY-AWAY ANTENNA

HOW TO ORDER

WFM090KU-FC

CASE

FC = Fiberboard case

RC = Ruggedized weatherproof case

ACCESSORY OPTIONS

BUC OPTIONS

	4W	6W	8W	20W	40W
BUC	BUC-ELMTKU004	BUC-ELMTKU006	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040
BUC power supply	n/a - IFL	n/a - IFL	n/a - IFL	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	n/a	n/a	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WFM090KUMT-004	WFM090KUMT-006	WFM090KUMT-008	WFM090KUMT-024	WFM090KUMT-024

LNB OPTIONS

LNB	1000H or HS1000
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IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	CABLEIFLNF-10	CABLEIFLNN-10	CABLEIFLFF-10

INTEGRATION

Assembly, function verification, pointing test (standard product/RF packages only)

Custom integration available for non-standard product/RF packages



WAYFARER™ WFA120KU

1.2m Ku-Band Auto Fly-Away

The Norsat WAYFARER™ commercial 1.2m fly-away antenna is a fast deploying, easy-to-use, and compact SATCOM VSAT. This antenna is an excellent choice for commercial applications in various industries.

The WAYFARER 1.2m fly-away antenna offers excellent rugged and reliable satellite links for remote enterprise, energy, emergency, and media applications.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Rugged and lightweight pedestal design
- Lightweight and durable 6 segment carbon fiber reflector
- Fast, simple, tool-free deployment
- Automatic 3-axis acquisition
- 2-case packing solution
- Wide range of Norsat BUC and LNB configurations
- Set up in 5 minutes



SPECIFICATIONS

ELECTRICAL

Reflector aperture	1.2m
Reflector material	Carbon fiber
Feed configuration	Center
Tx frequency	13.75 to 14.50 GHz
Rx frequency	10.70 to 12.75 GHz
Tx gain	42.8 + 20log (f/14.125) dBi
Rx gain	41.5 dBi + 20log (f/11.85) dBi
Polarization	Linear
Cross polarization (On-Axis)	≥35 dB
Tx/Rx isolation (port isolation)	Tx: ≥ 85 dB; Rx: ≥ 40 dB
Sidelobe	First sidelobe -14 dB
Azimuth range	± 200°
Elevation range	10° to 90°
Polarization range	± 90°
Azimuth speed	0.1°/s to 3°/s
Elevation speed	0.1°/s to 3°/s
Polarization speed	0.1°/s to 1°/s
Feed interface	WR75
Power supply	AC110-230V 50/60Hz, rated 200W, 550W max

PACKAGING

Fiberboard case		
Case 1	Pedestal assembly	Size: 71 cm (L) x 57 cm (W) x 30 cm (H); Weight: ≤28Kg
Case 2	Reflector / feed	Size: 71 cm (L) x 57 cm (W) x 30 cm (H); Weight: ≤18Kg
Ruggedized weatherproof case		
Case 1	Pedestal assembly	Size: 76 cm (L) x 62 cm (W) x 35 cm (H); Weight: ≤30Kg
Case 2	Reflector / feed	Size: 76 cm (L) x 62 cm (W) x 35 cm (H); Weight: ≤22Kg

ENVIRONMENTAL

Wind load - operational	36 km/h
Wind load - survival	61 km/h
Temperature	-40°C to +60°C
Humidity	0-95%
Water ingress	IP 65 (antenna only)

WAYFARER WFA120KU 1.2M KU-BAND AUTO FLY-AWAY ANTENNA

HOW TO ORDER

WFA120KU-NA-FC

CASE

FC = Fiberboard Case

RC = Ruggedized Weatherproof Case

AC POWER PLUG

NA = North America

UK = UK

EU = Europe

IEC = IEC

ACCESSORY OPTIONS

BUC OPTIONS

	4W	6W	8W	20W	40W
BUC	BUC-ELMTKU004	BUC-ELMTKU006	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040
BUC power supply	n/a	n/a	n/a	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	n/a	n/a	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WFA120KUMT-004	WFA120KUMT-006	WFA120KUMT-008	WFA120KUMT-024	WFA120KUMT-024

LNB OPTIONS

LNB	1000H or HS1000
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IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	CABLEIFLNF-10	CABLEIFLNN-10	CABLEIFLFF-10

UNIVERSAL AC POWER PLUG

WFAACPWR-U

INTEGRATION

Assembly, function verification, pointing test (standard product/RF packages only)

Custom integration (anything other than standard product/RF packages)



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Innovative Communication Solutions

WAYFARER™ WFA180KU

1.8m Ku-Band Auto Fly-Away

The Norsat WAYFARER™ commercial 1.8m fly-away antenna is a fast deploying, easy-to-use, and compact SATCOM VSAT. This antenna is an excellent choice for commercial applications in various industries.

The WAYFARER 1.8m fly-away antenna offers excellent rugged and reliable satellite links for remote enterprise, energy, emergency, and media applications.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Lightweight and durable carbon fiber reflector
- Fast, simple, tool-free deployment
- Automatic 3-axis acquisition
- Manual backup pointing operation
- 6-case packing solution
- Wide range of Norsat BUC and LNB configurations



SPECIFICATIONS

ELECTRICAL

Reflector aperture	1.8m
Reflector material	Carbon fiber
Reflector type	Offset
Tx Frequency	13.75 to 14.5 GHz
Rx Frequency	10.70 to 12.75 GHz
Tx Gain	46.3+20log(f/14.25) dBi
Rx Gain	45.3+20log(f/12.5) dBi
Polarization	Linear
Cross polarization (On-Axis)	≥35dB
Rx/Tx isolation	Rx > 35dB Tx > 85dB
Sidelobe	First sidelobe < -14 dBi
Azimuth range	±180°
Elevation range	0° to 90°
Polarization range	±90°
Feed interface	WR75
Azimuth speed	0.1°/s to 3°/s
Elevation speed	0.1°/s to 3°/s
Polarization speed	0.1°/s to 1°/s
Power supply	AC110-230V 50/60Hz, rated 400W, 1000W max

PACKAGING

Fiberboard case		
Case 1	Reflector	Size: 121 cm (L) x 44 cm (W) x 68 cm (H); Weight: ≤50Kg
Case 2	Pedestal assembly	Size: 131 cm (L) x 72 cm (W) x 32 cm (H); Weight: ≤50Kg
Case 3	Feed push rods	Size: 78 cm (L) x 54 cm (W) x 32 cm (H); Weight: ≤50Kg
Case 4	Support arms	Size: 119 cm (L) x 39 cm (W) x 52 cm (H); Weight: ≤50Kg
Case 5	Rotary table	Size: 60 cm (L) x 48 cm (W) x 68 cm (H); Weight: ≤50Kg
Case 6	Legs	Size: 151 cm (L) x 52 cm (W) x 35 cm (H); Weight: ≤50Kg

ENVIRONMENTAL

Wind load - operational	40 km/h
Wind load - survival	65 km/h
Temperature	-40°C to +60°C
Humidity	0-95% (20°C)
Water ingress	IP 65 (antenna only)



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WAYFARER WFA180KU 1.8M KU-BAND AUTO FLY-AWAY ANTENNA

HOW TO ORDER

WFA180KU-NA

AC POWER PLUG

NA = North America

UK = UK

EU = Europe

IEC = IEC

ACCESSORY OPTIONS

BUC OPTIONS

	8W	20W	40W	80W
BUC	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040	ATOMBKU080
BUC power supply	n/a	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)	PS-600ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	CABLEM+C-AT10	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WFA180KUMT-008	WFA180KUMT-024	WFA180KUMT-024	WFA180KUMT-080

LNB OPTIONS

LNB	1000H or HS1000
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IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	CABLEIFLNF-10	CABLEIFLNN-10	CABLEIFLFF-10

UNIVERSAL AC POWER PLUG

WFAACPWR-U

INTEGRATION

Assembly, function verification, pointing test (standard product/RF packages only)

Custom integration (anything other than standard product/RF packages)



WAYFARER™ WFM180KU

1.8m Ku-Band Manual Fly-Away

The Norsat WAYFARER™ commercial 1.8m fly-away antenna is a fast deploying, easy-to-use, and compact SATCOM VSAT. This antenna is an excellent choice for commercial applications in various industries.

The WAYFARER 1.8m fly-away antenna offers excellent rugged and reliable satellite links for remote enterprise, energy, emergency, and media applications.

FEATURES

- Easy and intuitive LinkControl™ Interface
- Rugged and lightweight pedestal design
- Lightweight and durable carbon fiber reflector
- Fast, simple, tool-free deployment
- 2-case packing solution
- Wide range of Norsat BUC and LNB configurations



SPECIFICATIONS

ELECTRICAL

Reflector aperture	1.8m
Reflector material	Carbon fiber
Reflector type	Offset
Tx frequency	13.75 to 14.5 GHz
Rx frequency	10.7 to 12.75 GHz
Tx gain	$46.3+20\log(f/14.25)$ dBi
Rx gain	$45.3+20\log(f/12.5)$ dBi
Polarization	Linear
Cross polarization (On-Axis)	≥ 35 dB
Rx/Tx isolation	Rx > 35dB Tx > 85dB
Sidelobe	First sidelobe < -14 dBi
Azimuth range	$\pm 180^\circ$
Elevation range	0° to 90°
Polarization range	$\pm 90^\circ$
Feed interface	WR75

PACKAGING

Fiberboard case		
Case 1	Reflector	Size: 145 cm (L) x 77 cm (W) x 82 cm (H); Weight: ≤ 85 Kg
Case 2	Pedestal assembly	Size: 166 cm (L) x 66 cm (W) x 59 cm (H); Weight: ≤ 64 Kg

ENVIRONMENTAL

Wind load - operational	40 km/h
Wind load - survival	65 km/h
Temperature	-40°C to $+60^\circ\text{C}$
Humidity	0-95% (20°C)
Water ingress	IP 65 (antenna only)



WAYFARER WFM180KU 1.8M KU-BAND MANUAL FLY-AWAY ANTENNA

HOW TO ORDER

WFM180KU

ACCESSORY OPTIONS

BUC OPTIONS

	8W	20W	40W	80W
BUC	BUC-ELMTKU008	ATOMBKU020	ATOMBKU040	ATOMBKU080
BUC power supply	n/a	PS-300ATKU-(NA/UK/EU/IEC)	PS-300ATKU-(NA/UK/EU/IEC)	PS-600ATKU-(NA/UK/EU/IEC)
BUC M & C cable	n/a	CABLEM+C-AT10	CABLEM+C-AT10	CABLEM+C-AT10
BUC mounting brackets	WFM180KUMT-008	WFM180KUMT-024	WFM180KUMT-024	WFM180KUMT-080

LNB OPTIONS

LNB	1000H or HS1000
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IFL CABLE OPTIONS

	N - F	N - N	F - F
IFL Cable (10m)	CABLEIFLNF-10	CABLEIFLNN-10	CABLEIFLFF-10

INTEGRATION

Assembly, function verification, pointing test (standard product/RF packages only)

Custom integration (anything other than standard product/RF packages)



Norsat
International Inc.

Innovative Communication Solutions

WAYFARER™ Fixed Antenna

Norsat's WAYFARER fixed antennas deliver adaptable and dependable solutions for semi-permanent SATCOM installations in remote locations.



Key Features

- 1.2m and 1.8 Composite (SMC) Reflectors
- Ku Band model available
- Fast, simple installation
- Manual acquisition for robust, weather-proof durability
- Mast and non-penetrating mount options
- Wide selection of BUC and LNB options

Typical Applications

Ideal applications include:

- Rural / Remote Broadband, crew welfare
- Temporary / Remote mobile communications
- Mining, oil & gas – exploration / field camp offices
- Construction – remote site offices

RF Options & Accessories

- Mast (Kingpost) and non-penetrating mast mount (NPMM) mounts
- Ku-band BUC options = 4W, 8W, 16W

The Norsat Advantage

All Commercial Fixed Antenna systems are supported by Norsat's global customer support team, who provide assistance for a range of technical issues. Customer support may include installation, training, trouble-shooting, application support, and 24/7/365 support is available to support mission critical applications.



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WAYFARER FIXED ANTENNA SYSTEM

Electrical

Reflector Aperture	1.2m
Polarization	Linear
Tx Frequency	14.00 - 14.50 GHz
Rx Frequency	10.95 - 12.75 GHz
Tx Gain	43.5 dBi, ± 0.2 dB
Rx Gain	41.5 dBi, ± 0.2 dB
Cross Polarization (Any angle, Off Axis)	-25 dB max.
VSWR	1.3:1 Max. Tx 1.3:1 Max. Rx

Mechanical

Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, One-Piece Offset Feed
Mount Type	Elevation Over Azimuth
Mast Pipe Size	2.5" SCH 40 Pipe (2.88" OD) 73.2 mm
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous
Shipping Specifications	90 lbs (41 kg)
(Approx. Net Weight)	

Environmental Performance

Wind Loading	
Operational	80 km/h
Survival	201 km/h
Temperature	
Operational	-40° to 140° F (-40° to 60° C)
Rain	
Operational	13 mm/h
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity	0 to 100% with Condensation
Solar Radiation	360 BTU/h/ft ²