

# NOKIA ORIGINAL ACCESSORIES

NOKIA HOME COMMUNICATIONS

ACCESSORIES 2002



# 1. Outdoor equipment for satellite reception

## ***Complete Outdoor Units (ODU)***

Wherever there is a demand for satellite TV there is a need for satellite reception and an outdoor installation. *Nokia Original Accessories* offers a variety of complete outdoor units where simplicity and design are honored.

All *Nokia Original Accessories* outdoor units come with high quality satellite dishes that are made of polyester-coated and powder-lacquered steel. The mechanical strength is approved to withstand wind power up to 50 m/second without vital deformation. The design of each antenna is engineered to find maximum efficiency in amplifying the satellite signal.

All *Nokia Original Accessories* LNB's (Low Noise Blocks) held a very high technical quality and are designed to match the dishes both visually and technically. The LNB's follow the universal standard for LNB's, but *Nokia Original Accessories* also include an output-filter to suppress frequency components from the low band in order to minimize the risk of disturbance from signals on the high band. This enhancement makes the signal from the LNB to the set-top-box cleaner and minimizes the risk for bad picture.

The compact and elegant ODU-packages are designed for simple tube- or wall-mounting and are delivered with all needed parts for the outdoor installation.

Fixed outdoor units, 60cm



The *Nokia Original Accessories* fixed 60 cm ODU is delivered together with one single universal LNB. It is a neat and small ODU that is recommendable for customers wanting access to one satellite with strong signal.

### ***Variants***

#### **Type**

60cm ODU, tube-mounted  
60cm ODU, wall-mounted

#### **Art-no**

262 6043-63  
262 6058-61

#### **Remarks**

Only sold in Malaysia under Astro brand.

**Technical data:**

Dish dimensions (external)	570 x 640 mm
Gain at 10,75 GHz	34.67 dB
Gain at 11,75 GHz	35.15 dB
Gain at 12,75 GHz	36.13 dB
Half power beam width at 12,75 GHz	<2,9°
Cross polar discrimination on main axis	>27 dB
Mast clamp for	32 - 50 mm
Elevation range	15°- 50°
F/D ratio	0.6
Offset angle	25°
Wind loading at 72 km/h	10.20 Kg
Wind loading at 144 km/h	40.80 Kg
Wind loading at 216 km/h	91.70 Kg
Feed bracket diameter	40 mm

**Compatible Optional Nokia Original Accessories**

Wall mount	262 5230-01
Universal twin LNB	262 5585-03
Universal Quad LNB	262 5588-01
2x1 DiSeqC-switches	262 5743-02, 262 5743-04
Smart priority switch	262 5741-02

Fixed outdoor units, 72 cm



*Nokia Original Accessories* fixed 72 cm ODU is the most popular ODU in the ODU range. It is delivered together with either one Single Universal LNB or one Universal Twin LNB. The Universal Twin LNB makes it possible for customers wanting to operate two set-top-boxes independently with the same ODU installation.

It is possible to upgrade this installation with a multifeed duo-kit in order to access two satellites 6° apart from each other with the same set-top-box. (This configuration is also

available in the “cash and carry” packages on the Nordic, German and Central European markets).

### **Variants**

<b>Type</b>	<b>Art-no</b>	<b>Remarks</b>
72cm ODU, tube-mounted with one Single Universal LNB	262 6047-62	
72cm ODU, wall-mounted with one Single Universal LNB	262 6047-61	
72cm ODU, wall-mounted with one Single Universal LNB	262 6062-61	Only sold in the Philippines. Co-branded under Nokia and Dream brands.
72cm ODU, tube mounted with one Twin Universal LNB	262 6061-62	

### **Technical data:**

Dish dimensions (external)	740 x 840 mm
Gain at 10,75 GHz	36.80 dB
Gain at 11,75 GHz	37.75 dB
Gain at 12,75 GHz	38.50 dB
Half power beam width at 12,75 GHz	<2,2° deg.
Cross polar discrimination on main axis	>27 dB
Mast clamp for	32 - 76 mm
Elevation range	15° - 50°
F/D ratio	0.6
Offset angle	25°
Wind loading at 72 km/h	17.40 Kg
Wind loading at 144 km/h	69.40 Kg
Wind loading at 216 km/h	156.20 Kg
Feed bracket diameter	40 mm

### **Compatible Optional Nokia Original Accessories**

Wall mount	262 5230-01
Duo kit 6°	262 5392-03
Universal twin LNB	262 5585-03
Universal Quad LNB	262 5588-01
2x1 DiSEqC-switches	262 5743-02, 262 5743-04
4x1 DiSEqC-switch	262 5744-01
Smart priority switch	262 5741-02

## Fixed Outdoor units, 85 cm



*Nokia Original Accessories* fixed 85 cm ODU's are delivered in many different configurations. The 6°-multifeed variants with two LNB's permit the user to view content from two adjacent satellites with the same installation. The Universal Twin and Quad LNB's make it possible to operate up to two (or four) different set-top-boxes independently. Since this antenna is bigger than the most common 72cm ODU it ensures better picture since it amplifies the satellite signal better. This makes this antenna a good choice for customers living in areas with weaker signals or customers wanting to receive signals from satellites far away.

It is possible to upgrade this installation with a multifeed duo-kit in order to access two satellites 6° apart from each other with the same set-top-box.

### **Variants**

Type	Art-no
85cm ODU, wall-mounted with one Single Universal LNB	262 6046-61
85cm ODU, tube-mounted with one Single Universal LNB	262 6046-62
85cm ODU, wall-mounted with one Single Universal LNB and weather cap	262 6046-64
85cm ODU, tube-mounted with two single universal LNB and weather caps (6°)	262 6025-63
85cm ODU, tube-mounted with Universal Quad LNB	262 6063-61
85cm ODU, tube-mounted with two Universal Twin LNB's (6°)	262 6057-62
85cm ODU, tube-mounted with one universal twin LNB	262 6056-62

### **Technical data:**

Dish dimensions (external)	850 x 850 mm
Gain at 10,75 GHz	38.12 dB
Gain at 11,75 GHz	38.65 dB
Gain at 12,75 GHz	39.53 dB
Half power beam width at 12,75 GHz	<2,2°
Cross polar discrimination on main axis	>27 dB

Mast clamp for	32 - 76 mm
Elevation range	15° - 50°
F/D ratio	0.6
Offset angle	21,5°
Wind loading at 72 km/h	21.30 Kg
Wind loading at 144 km/h	85.40 Kg
Wind loading at 216 km/h	192.10 Kg
Feed bracket diameter	40 mm

#### ***Compatible Optional Nokia Original Accessories***

Wall mount	262 5230-01
Wall mount (Large)	262 5235-01
Duo kit 6°	262 5392-03
Universal twin LNB	262 5585-03
Universal Quad LNB	262 5588-01
2x1 DiSEqC-switches	262 5743-02, 262 5743-04
4x1 DiSEqC-switch	262 5744-01
Smart priority switch	262 5741-02

Fixed Outdoor units, 100 cm



The *Original Nokia Accessories* fixed 100cm ODU is designed for use where the strength of the satellite signal is weak. This is therefore the perfect choice for customers living in areas with weak satellite signals or customers wanting to receive signals from satellites far away.

#### ***Variants***

Type	Art-no
100 cm ODU, tube-mounted with one Single Universal LNB	262 6051-62

**Technical data:**

Dish dimensions (external)	950 x 1050 mm
Gain at 10,75 GHz	39.80 dB
Gain at 11,75 GHz	40.50 dB
Gain at 12,75 GHz	40.90 dB
Half power beam width at 12,75 GHz	<1,8°
Cross polar discrimination on main axis	>27 dB
Mast clamp for	32 - 76 mm
Elevation range	15°- 50°
F/D ratio	0.6
Offset angle	25°
Wind loading at 72 km/h	29.80 Kg
Wind loading at 144 km/h	119.10 Kg
Wind loading at 216 km/h	268.00 Kg
Feed bracket diameter	40 mm

**Compatible Optional Nokia Original Accessories**

Wall mount (Large)	262 5235-01
Universal twin LNB	262 5585-03
Universal Quad LNB	262 5588-01
2x1 DiSEqC-switches	262 5743-02, 262 5743-04
4x1 DiSEqC-switch	262 5744-01
Smart priority switch	262 5741-02

**Universal Low Noise Blocks (LNB)**

*Nokia Original Accessories* Universal LNB's are especially designed for high demands of signal quality. This makes them optimal choices for both analog and digital reception of satellite signals.

All *Nokia Original Accessories* LNB's follow the universal standard set by Astra, but to further increase the quality of the product the Single Universal LNB from Nokia also includes an output-filter to suppress frequency components from the low band in order to minimize the risk of disturbance from signals on the high band. This enhancement makes the high band signal from the LNB to the set-top-box cleaner when and minimizes the risk for bad picture while accessing those.

A universal twin LNB is in principle two Single Universal LNB's in one. This is the ideal solution in order to operate two set-top-boxes independently from the same ODU installation. The Universal Quad LNB gives the same functionality to up to four set-top-boxes.

### **Variants**

<b>Type</b>	<b>Art-no</b>	<b>Remarks</b>
Single Universal LNB	262 5587-01	
Single Universal LNB	262 5587-02	Only sold in Asia
Universal Twin LNB	262 5585-03	
Universal Quad LNB	262 5588-01	

### **Technical data**

Frequency range low band	10,7 - 11,7 GHz
Frequency range high band	11,7 - 12,75 GHz
Local oscillator frequencies	9,75 / 10,6 GHz

	<b>262 5587-01/02</b>	<b>262 5585-03</b>	<b>262 5588-01</b>
Conversion gain min.	46 dB	50 dB	46 dB
Noise figure low / high band type.	0,7 / 0,7 dB	1,0/1,2 dB	1,3/1,1 dB
Cross polar discrimination	25 dB type	20 dB	20 dB type
Supply voltage vertical pol.	11,5-14,0 V	11,5-14,0 V	11,5-14,0 V
Supply voltage horizontal pol.	16,0-19,0 V	16,0-19,0 V	16,0-19,0 V
F/D ratio feedhorn	0,615	0,6	0,615
Current consumption	80mA type	220 mA	230 mA
Weight	180±25 g	500 g	530±25 g
Operating temperature	-40°C to +60°C	-40°C to +60°C	-40°C to +60°C

### **DiSEqC 1,2 Positioners**



*Nokia Original Accessories* DiSEqC 1,2-positioner is an on-cable positioning system allowing reception of 29 different satellite-positions within a range of +/- 60 degrees.



DC-power and commands are fed to the positioner via the normal coaxial cable to the LNB. No extra cable is needed.

The housing of the DiSEqC 1,2-positioner is made completely in aluminum. The shaft for the dish is placed on double ball bearings in order to secure safe and reliable mounting.

The mounting pole on the positioner also has a special designed V-shape, unique for *Nokia Original Accessories* positioners, which makes installation even simpler for Nokia customers.

The *Nokia Original Accessories* positioner is equipped with a global reprogramming system that allows easy adoption to the actual geographic location of the installation. The end positions of the positioners operating field can also be programmed to protect the motor to crash into obstacles.

### **Variants**

#### **Type**

DiSEqC 1,2 positioner

#### **Art-no**

00000436

#### **EAN**

733070371111 2

### **Technical data**

Supply voltage	13 / 18 v
Current consumption	35 mA passive / 190 mA (type) active (350 mA maximum)
Speed at 13 v	1,2 degree/sec
Speed at 18 v	1,8 degree/sec
Range of turning-angle	+/- 60 degree.
Max antenna-size	100 cm

### **Duo-kit 6°**



One common demand for satellite reception is to be able to reach content from two adjacent satellites from the same outdoor unit. The satellites are often 6° apart.

For customers that have a 72cm or 85cm ODU with only one LNB it is possible to upgrade this installation and receive signals from two satellites. This is done with a *Nokia Original Accessories* duo-kit to make a 6° multi-feed arrangement.

The duo-kit consists of one Single universal LNB, one multi-feed mounting and one combined DiSEqC/Toneburst-switch.

**Variants****Type**

Duo kit 6°

**Art-no**

262 5392-03

**Wall mounts**

Wall mounts are used to safely attach outdoor units to a wall. *Nokia Original Accessories* offers two different kinds of wall mounts. Which wall mount to use depends on the size and the weight of the outdoor unit.

All wall mounts are made of galvanized steel and they come together with screws and fixation plugs for secure fixation on the wall.

**Variants****Type**

Wall mount for 85 and 100 cm ODU

Wall mount for 60,72 and 85 cm ODU

**Art-no**

262 5235-01

262 5230-01

**Technical data:**

	262 5230-01	262 5235-01
Max. Distance from wall	240 mm	340 mm.
Tube-diameter	40 mm	52 mm

## 2. Switches

### ***2x1 High isolation Combined DiSEqC/ Toneburst-switch***



Nokia Original Accessories 2x1 High isolation combined DiSEqC/Toneburst-switch is intended to connect two LNB's (directed to two different satellites) to one set-top-box.

The switch automatically detects whether the set-top-box uses the DiSEqC- or the Toneburst protocol, and adapts to either one of them. This means that this switch is always applicable no matter what switching protocol is used.

This product exists in two versions. The high isolation version has a 20dB isolation between the two input channels. This means that it supports simultaneous use from both LNB's as in the case with Universal-twin LNB's. The switch without high frequency isolation is not advisable to use together with a universal twin LNB since the signals in this case risk disturbing each other.

#### ***Variants***

##### **Type**

DiSEqC/Toneburst

DiSEqC/Toneburst High isolation

##### **Art-no**

262 5743-02

262 5743-04

### ***4x1 INPUT DiSEqC- switch***



The Nokia Original Accessories 4x1 DiSEqC-switch makes it possible to connect four single universal LNB's (directed to four different satellites) to one set-top-box.

The switch can be pre-programmed into different modes. When delivered it is pre-programmed for Nokia-receiver commands.

The switch is delivered in a blister package with instruction for use and a plastic weather-protection cap for mounting outdoors.

**Note:**

*Due to that there is no high frequency isolation between the inputs it is not recommendable to use this switch together with universal twin or universal Quad LNB's.*

**Variants**

**Type**

4x1 DiSeqC-switch

**Art-no**

262 5744-01

**Smart priority switch**



The *Nokia Original Accessories* Smart priority switch is intended to connect any two set-top-boxes to one common LNB. The receiver connected to the A-output gets priority (master) over the other (slave).

The switch is delivered with two 40 cm coaxial cables.

Only for use indoor.

**Note**

*Since the "Master" set-top-box has control over the LNB the "Slave" set-top-box can only access channels from the same band and the same polarization (e.g. High band / Vertical polarization). For total independence between two set-top-boxes it is recommendable to use a universal Twin LNB installation.*

**Variants**

**Type**

Smart priority switch

**Art-no**

262 5741-02

## ***External modulator kit***



The *Nokia Original Accessories* external modulator kit is used together with analog or digital satellite receivers without internal modulators. It gives the possibility to connect the receiver to a TV-set without SCART-input. It also makes it possible to distribute the RF-signal to a second TV-set.

The power for the modulator is taken from the LNB-voltage (13/18v) via an adapter.

### ***Variants***

#### **Type**

External modulator kit

#### **Art-no**

262 5748-01

### ***Technical data:***

System

CCIR PAL-G

Input voltage

13-18 v via LNB out

Current consumption

100 mA type

Frequency range

Modulated UHF channel 30 - 39

Adjustable (preset = ch 38)

Bypass 47 - 854 MHz, 0,8 dB  $\pm$  3 dB

Out put level

71 dB $\mu$ V  $\pm$  4 dB

Test pattern

ON-OFF switch

Input

SCART connector.

### 3. Remote controls & Keyboards



Many content providers offer today interactive services. This creates a need for a more advanced remote control. The *Nokia Original Accessories* remote control with keyboard is a neat remote control for set-top-boxes with an in-built keyboard. In closed position the remote control works as any ordinary remote control. When the remote control is flipped open a full keyboard is revealed on its back.

The remote control with keyboard supports set-top-boxes 9802, 9902, and 9780.

#### **Variants**

##### **Type**

Remote Control with keyboard

##### **Art-no**

262 6801-62

##### **Remarks**

Only sold on the Nordic market

## 4. Terrestrial active indoor antenna



In line with the introduction of terrestrial digital transmission many customers have requested a simple indoor antenna as a complement to the normal TV aerial which often is optimized for reception of analog TV transmissions. Nokia now introduce the next generation of indoor antennas that is optimized for digital signals on the UHF band.

### **Features**

- Optimized for DVB-T signal reception
- Small size, ultimate design
- Table stand and wall fixing available
- Fixed antenna cable (3 m)
- Power feed through antenna cable (no external power amplifier)
- Can be used with all Nokia terrestrial receivers that are equipped with power socket

### **Technical data**

- Freq. range 470-862 MHz

### **LNA (Low Noise Amplifier)**

- Gain 15dB
- Noise figure 2dB or less
- Output impedance 75ohm nom.
- Supply voltage 5V
- Current 30mA max
- GSM interference tolerance

### **Cable**

- 3 m flexible cable with DC input

### **Type**

Active indoor antenna  
Active indoor antenna

### **Art-no**

262 6370-71  
262 7370-71

### **Remarks**

Single pack  
Multi pack 5pcs