SPECIFICATION

Part No.	:	FW.86.B.NTY.M
Description	:	Meteor-868MHz Flexible Whip Monopole Antenna
Features	:	External 868MHz Monopole Antenna Rugged Design for Outdoor Use Robust Inner Steel Core Antenna Height 243mm N Type(M) Straight Connector IP67 dust and water-resistant *Tested on 30*30cm Ground Plane RoHS Compliant ✓

1. Introduction

The FW.86 is a flexible 868MHz whip antenna with an N type(M) connector for outdoor use. It features excellent efficiency and high peak gain at 868MHz on a 30*30cm ground plane.

The antenna was specifically developed for applications such as weather monitoring systems, motion/vibration sensors, pollution monitoring, and border guard monitoring systems.

The FW.86 works at 868MHz with high efficiency, meaning that it allows your radio to consume less power than with a lower efficiency antenna when transferring data.

The whip is made of a flexible inner steel core covered by PE so it is extremely resistant to abrasion and maintains its original shape and RF performance. This rugged design and IP67 rating has been tested by our customers to withstand environmental stress and moderate physical shock in the field.

The FW.86.B.NTY.M 868MHz whip antenna, with an N type male connector, provides a simple solution to any outdoor devices where the FW.86 antenna's rugged design and high efficiency can provide the best value to the application

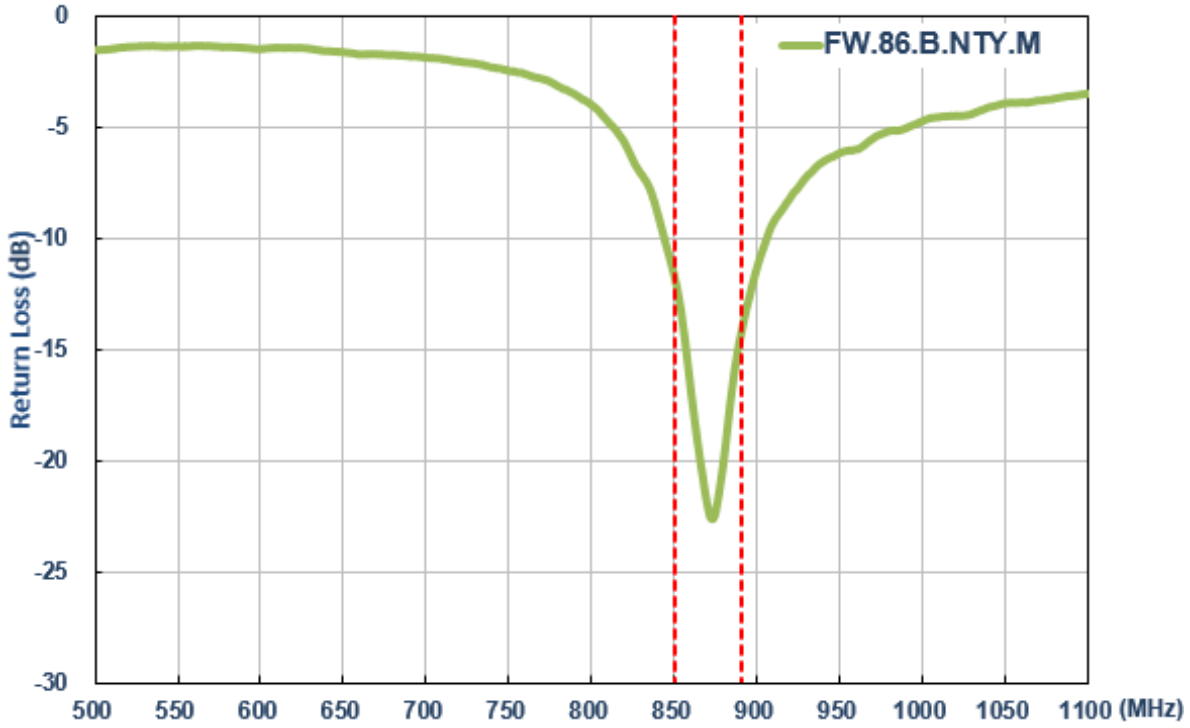
2. Specification

FW.86.B.NTY.M			
Center Frequency	850MHz	868MHz	890MHz
Efficiency	67.52%	70.60%	67.54%
Peak Gain	1.82dBi	2.82dBi	3.58dBi
Average Gain	-1.71dB	-1.51dB	-1.70dB
Impedance	50Ω		
Polarization	Linear		
Radiation Pattern	Omnidirectional		
Input Power	2 W		
MECHANICAL			
Dimensions	243 ± 5.3mm		
Base Diameter	20 ± 0.6mm		
Whip Diameter	6.2 ± 0.6mm		
Casing	ABS		
Connector	N Type(M) Straight		
Weight	48.5g		
Dust and Water Resistance	IP67		
ENVIRONMENTAL			
Temperature Range	-40°C to 85°C		
Humidity	Non-condensing 65°C 95% RH		

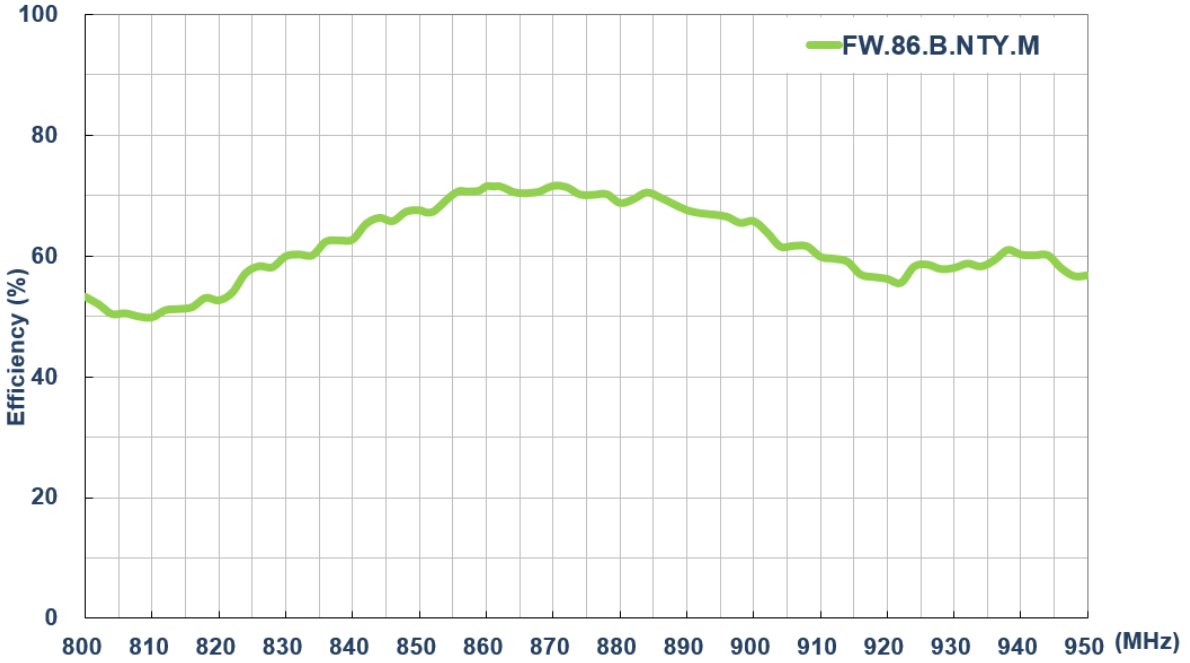
*All tested on 30*30cm Ground Plane

3. Antenna Characteristics

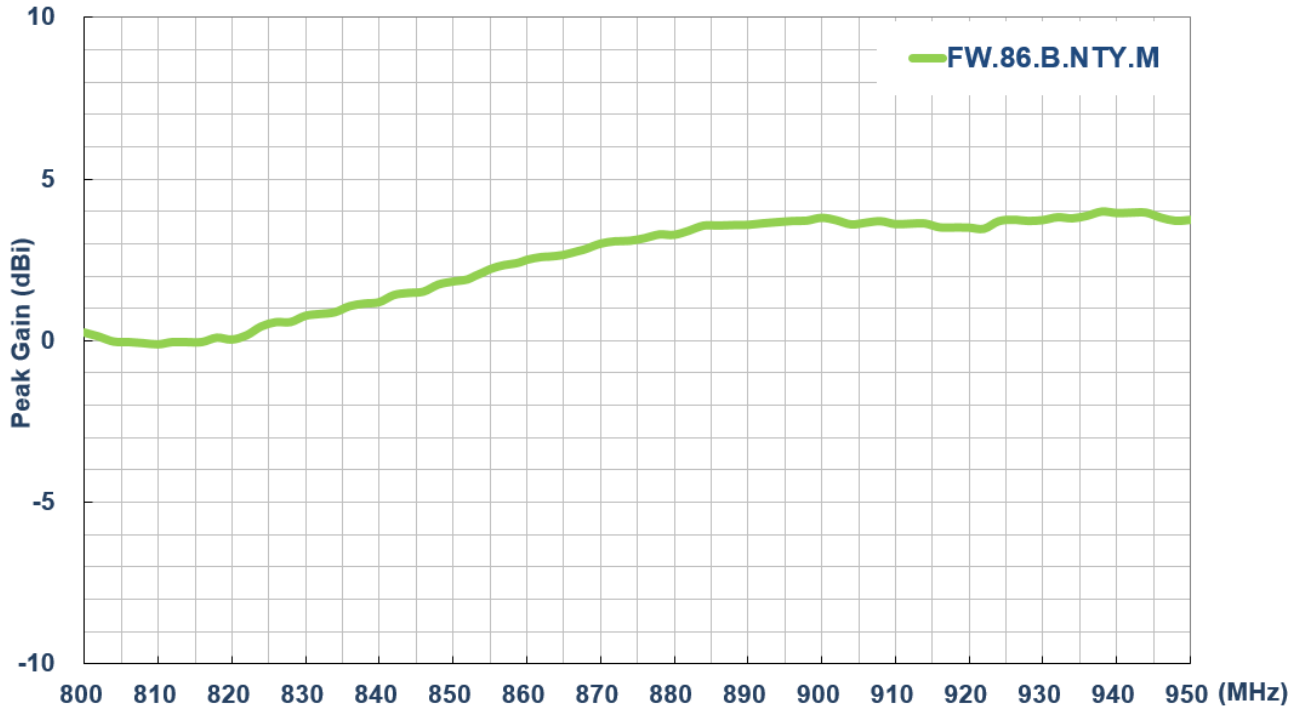
3.1. Return Loss



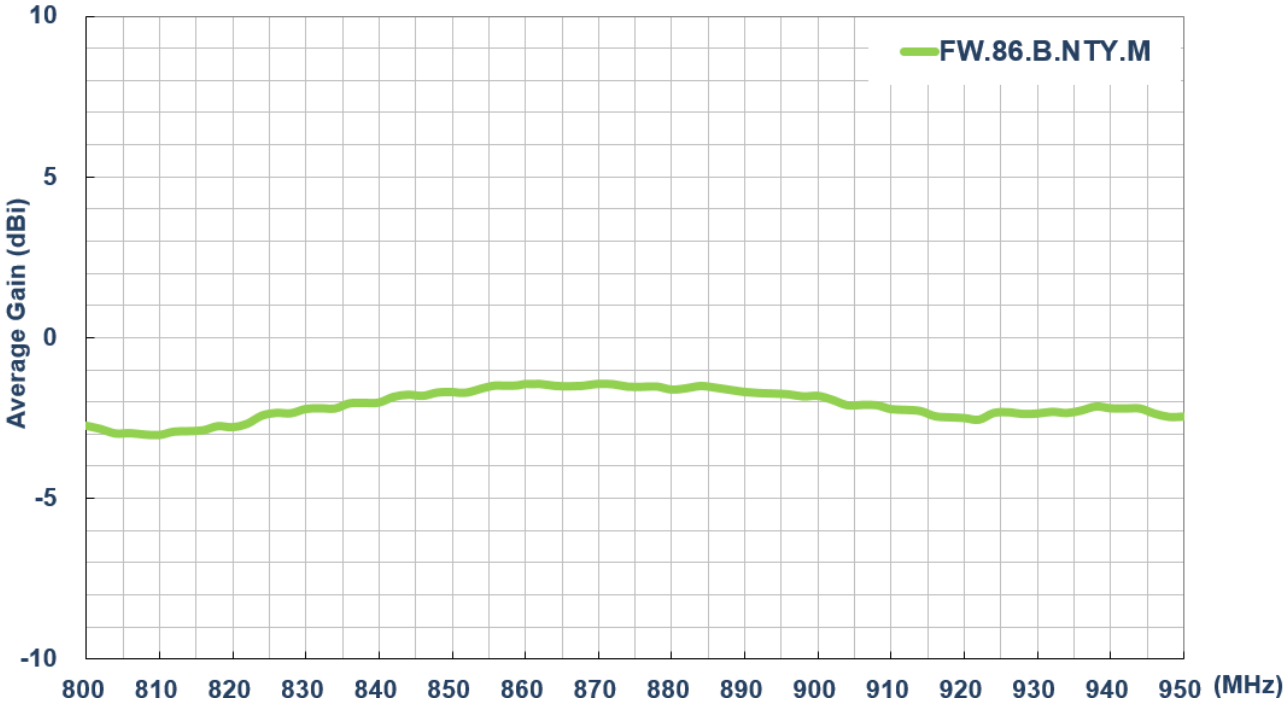
3.2. Efficiency



3.3. Peak Gain



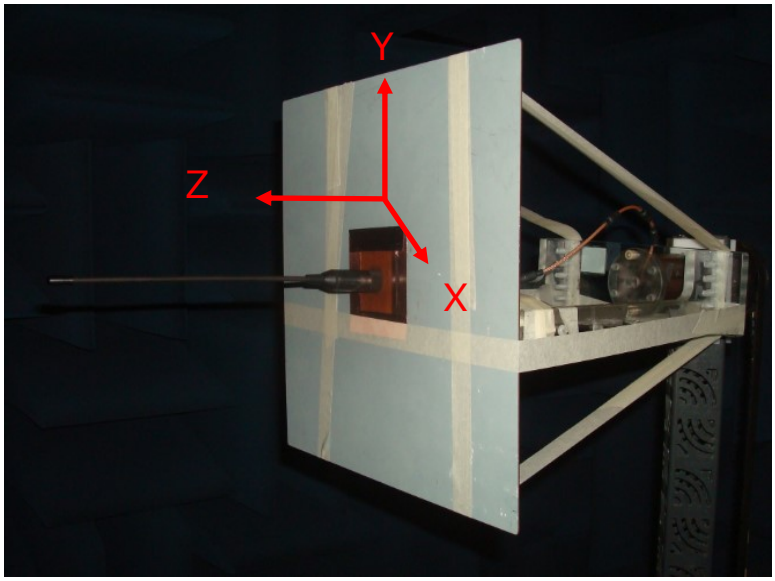
3.4. Average Gain



4. Antenna Radiation Pattern

4.1. Antenna Setup

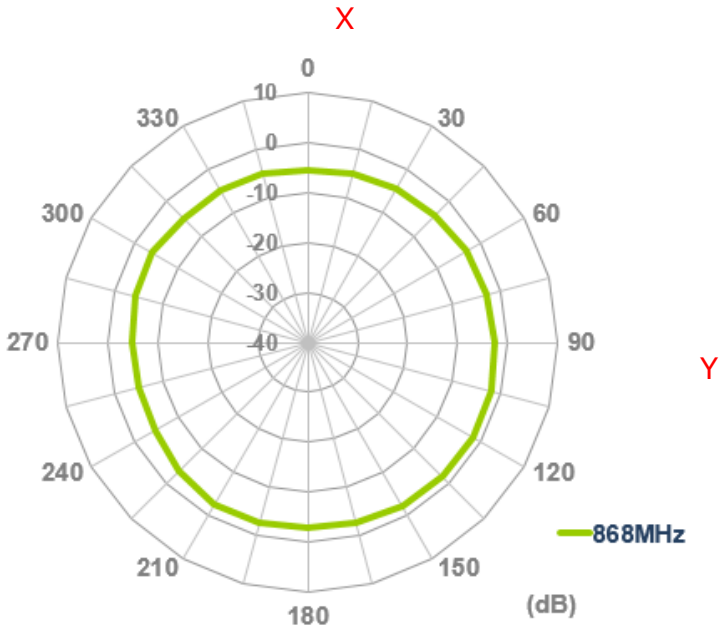
On 30*30cm ground plane



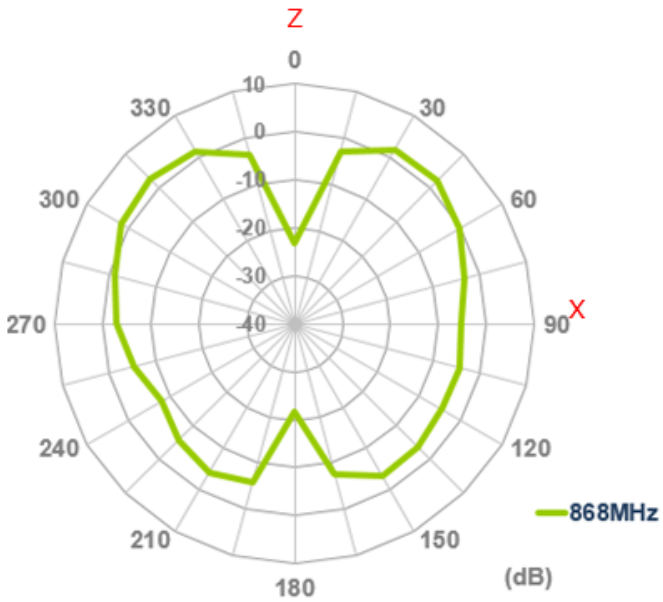
4.2. 2-D Radiation Pattern

On 30*30cm Ground Plane

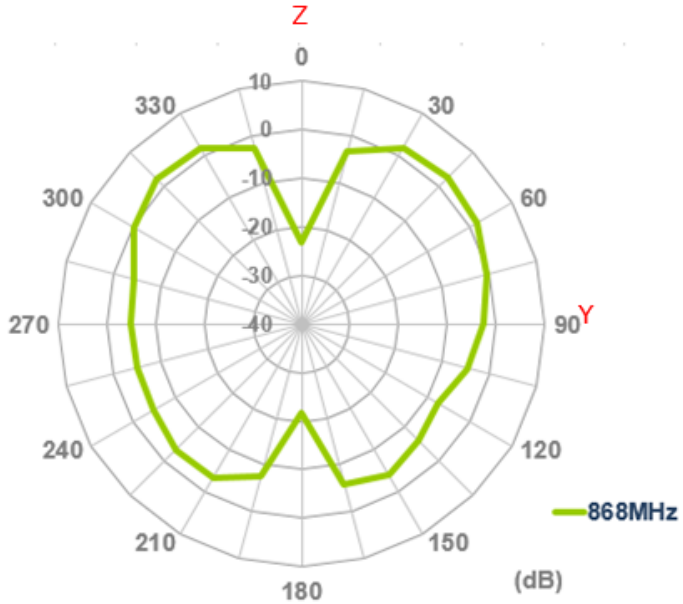
XY Plane



XZ Plane

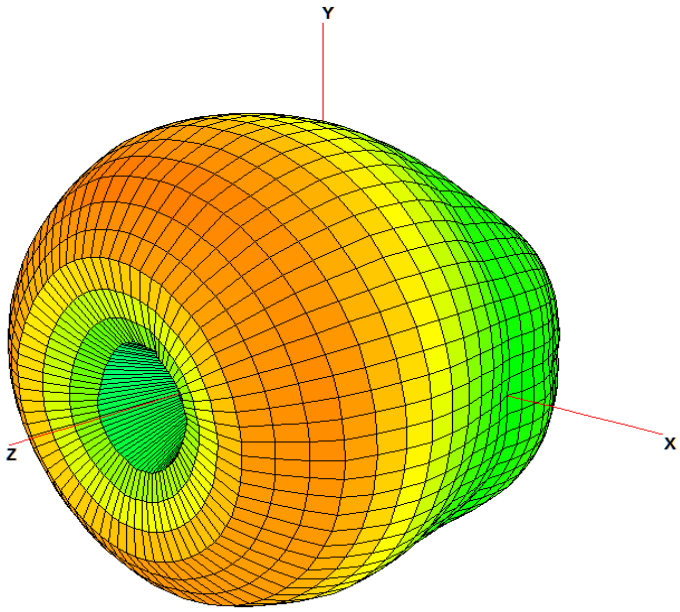


YZ Plane



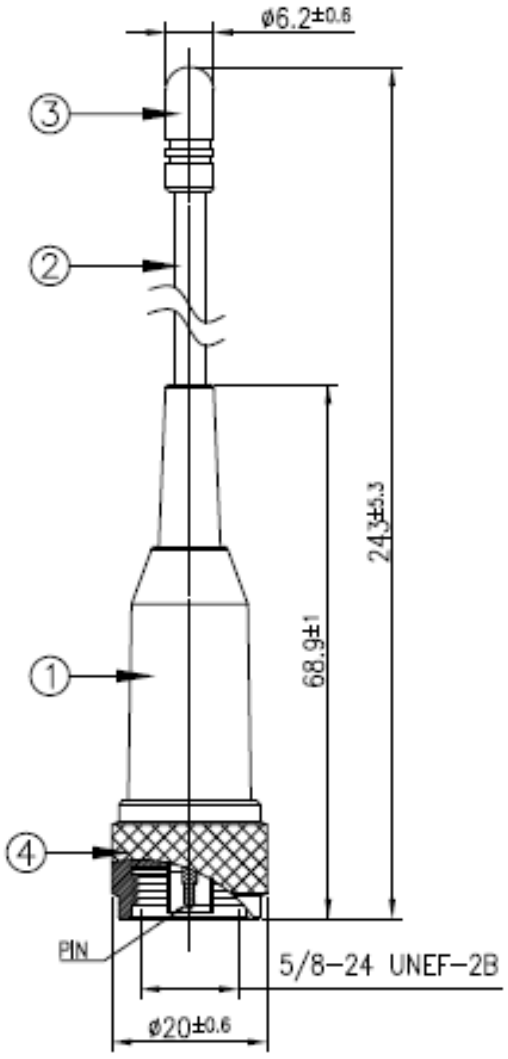
4.3 3-D Radiation Pattern

On 30*30cm Ground Plane



@868MHz

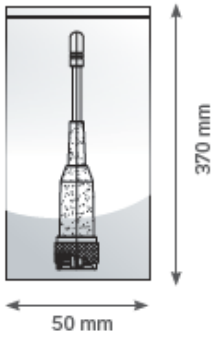
5. Antenna Drawing (Unit: mm)



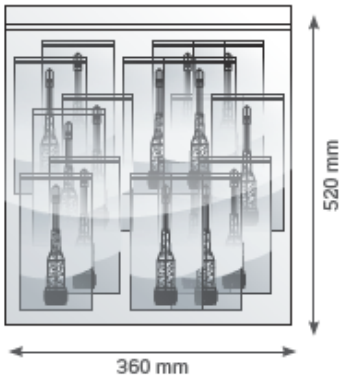
	Name	P/N	Material	Finish	QTY
1	Housing	000113A000002A	ABS	Black	1
2	Flexible Whip	001113A000002A	Steel+PE Jacket	Black	1
3	Cap	000713A000002A	POM	Black	1
4	N Type (M)ST	211014A000002A	Brass	Black	1

6. Packaging

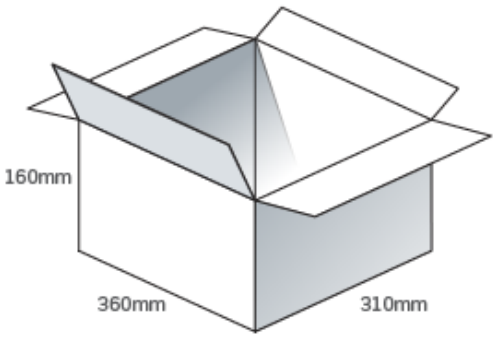
FW.86.B.NTY.M
Packaging Specifications



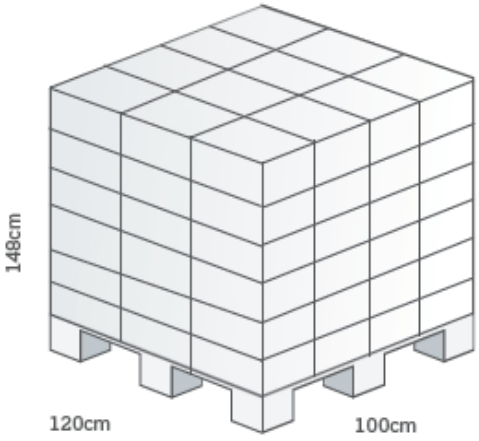
1 pcs FW.86.B.NTY.M per PE Bag
Bag Dimensions - 50 x 370 mm
Weight - 40g



50 pcs FW.86.B.NTY.M per PE Large Bag
Bag Dimensions - 360 x 520mm
Weight - 2.5kg



150 pcs FW.86.B.NTY.M per carton
Carton - 360x 310 x 160mm
Weight - 7.5Kg



Pallet Dimensions 120x 100 x 148cm
72 Cartons per Pallet
12 Cartons per layer
6 Layers