CelloTrack Nano 20 Type-0 vs. Type-11

Proprietary and Confidential

Version 1.0

Revised and Updated: February 9, 2015

Cellocator Division
Pointer Telocation Ltd.

Legal Notices

IMPORTANT

1. All legal terms and safety and operating instructions should be read thoroughly before the product accompanying this document is installed and operated.

2. This document should be retained for future reference.

3. Attachments, accessories or peripheral devices not supplied or recommended in writing by Pointer Telocation Ltd. may be hazardous and/or may cause damage to the product and should not, in any circumstances, be used or combined with the product.

General

The product accompanying this document is not designated for and should not be used in life support appliances, devices, machines or other systems of any sort where any malfunction of the product can reasonably be expected to result in injury or death. Customers of Pointer Telocation Ltd. using, integrating, and/or selling the product for use in such applications do so at their own risk and agree to fully indemnify Pointer Telocation Ltd. for any resulting loss or damages.

Warranty Exceptions and Disclaimers

Pointer Telocation Ltd. shall bear no responsibility and shall have no obligation under the foregoing limited warranty for any damages resulting from normal wear and tear, the cost of obtaining substitute products, or any defect that is (i) discovered by purchaser during the warranty period but purchaser does not notify Pointer Telocation Ltd. until after the end of the warranty period, (ii) caused by any accident, force majeure, misuse, abuse, handling or testing, improper installation or unauthorized repair or modification of the product, (iii) caused by use of any software not supplied by Pointer Telocation Ltd., or by use of the product other than in accordance with its documentation, or (iv) the result of electrostatic discharge, electrical surge, fire, flood or similar causes. Unless otherwise provided in a written agreement between the purchaser and Pointer Telocation Ltd., the purchaser shall be solely responsible for the proper configuration, testing and verification of the product prior to deployment in the field.

POINTER TELOCATION LTD.'S SOLE RESPONSIBILITY AND PURCHASER'S SOLE REMEDY UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE PRODUCT HARDWARE, SOFTWARE OR SOFTWARE MEDIA (OR IF REPAIR OR REPLACEMENT IS NOT POSSIBLE, OBTAIN A REFUND OF THE PURCHASE PRICE) AS PROVIDED ABOVE. POINTER TELOCATION LTD. EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, SATISFACTORY PERFORMANCE AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL POINTER TELOCATION LTD. BE LIABLE FOR ANY INDIRECT, SPECIAL, EXEMPLARY, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOSS OR INTERRUPTION OF USE, DATA, REVENUES OR PROFITS) RESULTING FROM A BREACH OF THIS WARRANTY OR BASED ON ANY OTHER LEGAL THEORY, EVEN IF POINTER TELOCATION LTD. HAS BEEN ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SUCH DAMAGES.

Intellectual Property

Copyright in and to this document is owned solely by Pointer Telocation Ltd. Nothing in this document shall be construed as granting you any license to any intellectual property rights subsisting in or related to the subject matter of this document including, without limitation, patents, patent applications, trademarks, copyrights or other intellectual property rights, all of which remain the sole property of Pointer Telocation Ltd. Subject to applicable copyright law, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), or for any purpose, without the express written permission of Pointer Telocation Ltd.

© Copyright 2015. All rights reserved.

1   Introduction

The following table describes which Nano related events are supported in type-0.

Of course all of these events are supported also in type-11.

This can help testing the new functionality even before completion of type-11 integration.

2 Type-0 Nano features table

Type 0 Nano Feature	Comment
Nano internal sensors reading are passed on the "Multi-purpose bytes" of the type-0 message in most cases. There are some special cases where these fields are used to convey another data	This is carried on the "Multi-purpose bytes", #33-38 of type-0 message
Extra GNSS locations (Nano improved mode): Location acquired between 2 "COM glancing" logged but not transmitted immediately	These locations are transmitted as multiple separate messages
Impact in Nano and impact or Free-fall Recognition in MultiSense. Tx-reason is "Nano=164" and sub-reasons are new (i.e. 1=impact and 16=free fall)	The info about source of the event and its magnitude is passed over the "Multi-purpose bytes"
Tilt Tamper (of Nano)	Only new sub-reason on existing (legacy) tamper event
Orientation Change (of Nano)	Tx-reason is "Nano=164" and sub-reasons is new (i.e. 2= Orientation change)
Man Down (in Nano)	Tx-reason is "Nano=164" and sub-reasons is new (i.e. 3= Man down)
Package Open/Close	Light based event. For both MultiSense and Nano Tx-reason is "Nano=164" and sub-reasons are new (i.e. 4=open , 5=closed). Source of the event and exact light level are passed on the "Multi-purpose bytes".
Work-ID /Activation Event	Type-0 indicates that the nano has been turned-on, however the counter is not passed on type-0 (only on type-11).
Temperature/Humidity start/end alert Reporting + retransmissions of the above (if configured)	Temperature for both MultiSense and Nano. Humidity for MultiSense-TH only On "temperature exceeded" event all the info is passed on the "Multi-purpose bytes". Tx-reason is "Nano=164" and sub-reasons are new (i.e. 11= temperature event, 12= humidity event). Regarding the retransmissions they will be also sent (if enabled) over type-0 message with the last single measurement only (not array as in type-11)
Check-in Feature	Tx-reason is "Nano=164" and sub-

reasons is new (i.e. 13= Check-in)

3 Type-0 MultiSense features table

Type 0 MultiSense Features	Comment
MultiSense Provisioning Event	Includes: Lost/restored communication, Low-bat /restore, MultiSense power-up event. Tx-reason is "Nano=164" and sub-reason is new (i.e. 10= MultiSense event). Source of the event is passed on the "Multi-purpose bytes".
MultiSense Open/Close Package Feature	Light based event.
MultiSense Open/Close Door/Window Feature	Magnetic sensor
MultiSense Added Event	non exist
MultiSense Removed Event	non exist