



January 1, 2011

RE: TG-7FS Sole Path Cellular Alarm Communicator

To whom it may concern:

In November 2009, the National Fire Protection Association (NFPA) released the newest addition to the NFPA 72, National Fire Alarm and Signaling Code, 2010 Edition. This addition contained numerous code updates, but one in particular affected Telular's Telguard product line. The new code defined a set of general communication guidelines which, if adhered to, would allow new communications technologies to act as the sole path for fire control panel communications. Cellular, or GSM, was one such technology.

As it relates to the general communications section, the new code outlines in its appendix the requirements products must meet to operate as a *sole path* (i.e., no redundant path) of communications. Essentially, two new requirements are introduced:

1. A failure in the communications path must be annunciated at the supervising station within five minutes of the failure, and
2. The battery backup must provide 24 hours of standby current plus five minutes of signaling current while operating at a five minute supervision interval.

In December 2010, Telular launched the TG-7FS Sole Path Cellular Alarm Communicator. Prior to its release, it was subjected to stringent tests by UL following the UL 864 Rev. 9 test suite. This revision was developed to test the newest NFPA 72 code and specifically verifies the aforementioned requirements.

Please refer to the attached documents for more details on the features of the TG-7FS, certification letters from testing authorities, and a reference guide to the NFPA code sections that allow the Telular Telguard TG-7FS to be a sole path for fire control panels.

Sincerely,

Shawn Welsh  
Vice President  
Telular Corporation

**Telular Corporation**

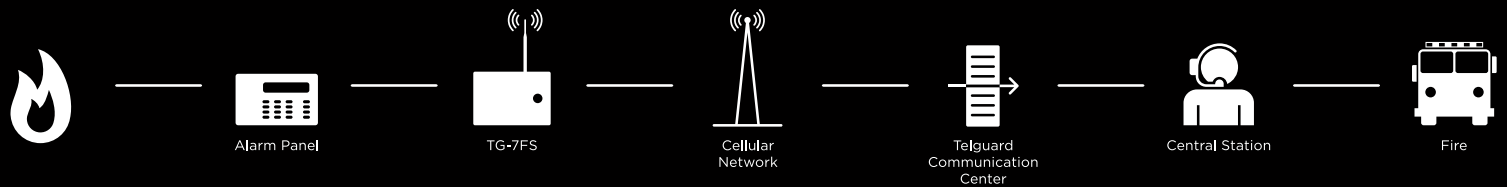
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# CELLULAR GUIDE TO THE NFPA 72 2010 EDITION

NFPA 72 2010 Edition contains language in key sections that allow cellular based products to be used as the *sole path* of communications for fire control panels. It specifically defined a section for *general communication methods*. The specific requirements for general communications are detailed in a table in the code's Annex.

UL 864 Rev. 9 has been written to specifically test products to the NFPA 72 2010 Edition code. The Telguard TG-7FS is UL 864 Rev. 9 listed and found fully compliant with NFPA standards.

## TELGUARD TG-7FS NETWORK DIAGRAM



Code Section	Section Summary	Telguard's Compliant Component
26.6.3	<p>This section defines <i>general communication methods</i> that differ from DACT, Two-Way Radio and One-Way Private Radio.</p> <p>Equipment that meets the performance requirements of this section are permitted as suitable communications methods.</p>	<p>TG-7FS      Cellular Network      Telguard Communication Center</p>
26.6.1	<p>This section covers all communications methods between the premises and the supervising station.</p> <p>It directs the reader to the Annex A.26.6.1 which then further directs the reader to Table A.26.6.1.</p>	<p>TG-7FS      Cellular Network      Telguard Communication Center</p>
Table A.26.6.1	<p>This table defines that annunciations on the degradation and restoral of a communications path must occur within five (5) minutes.</p> <p>It also defines the fact that equipment conforming to 26.6.3 must only provide a redundant path if the communications failure cannot be annunciated within five (5) minutes.</p>	<p>TG-7FS      Cellular Network      Telguard Communication Center</p>



TELGUARD

# TG-7FS

## CELLULAR ALARM COMMUNICATOR

### COMMERCIAL FIRE

#### PRODUCT FEATURES

- Meets UL 864 requirements for sole, primary or backup path communications.
- Supports virtually all alarm formats for universal panel compatibility.
- Connects to your central station's PSTN or IP receivers.
- Minimizes false alarms by providing dual paths for self-tests.

The Telguard TG-7FS is the ideal cellular alarm communications solution for commercial fire systems. The TG-7FS transmits alarm signals from the fire panel over the digital cellular network to the designated monitoring station.

Compliant with the 2010 Edition of NFPA 72, the TG-7FS can serve as the sole communications path for the fire alarm system, replacing all of the landlines currently dedicated to the master control unit. On average, cellular monitoring costs the end user significantly less than a dedicated landline. For each landline replaced with a TG-7FS, the monthly communications bill decreases.

By being able to signal failures to the central station within five minutes of an outage, the TG-7FS can be installed as the sole path for commercial fire installations. For existing installations, all landlines can be swapped for a single TG-7FS because of the new five minute supervision mode.

The TG-7FS can also be installed as a backup path, and upgraded to sole path at a later date.



#### Telguard Online

Telguard makes adopting cellular easy with a secure Internet portal. The straightforward web interface allows security dealers and central stations to quickly and efficiently access Telguard based services 24/7. This advanced tool has multi-level user authorization and provides total account management of UL Listed Telguard cellular alarm communicators.

#### Telguard Cellular Service

Telguard Cellular Service provides nationwide digital cellular network coverage for all Telguard units. Telguard's Communication Center is UL listed and provides seamless connectivity between the alarm panel, the Telguard family of products and the central station. Telguard Technical Support provides a single point of contact for both cellular service and Telguard product questions.

#### Advanced Reliability

- Multi-tower assessment informs the installer if the unit can see multiple cell towers for redundancy.
- Features SMS backup to reduce false alarms, providing self-tests using SMS if GPRS fails.
- Automatic self-tests with central station notification ensure the cellular system is operating.
- Available relay output for tripping the alarm control panel when a trouble condition occurs.



**TELGUARD**

# TG-7FS

# CELLULAR ALARM COMMUNICATOR

## Power

- Transmit power: 1.0W-2.0W (maximum allowable).
- Power Consumption: 60mA (Standby) 250mA (Transmission).
- Transformer: 12VAC, 800mA UL listed plug-in.

## Radio Transceiver

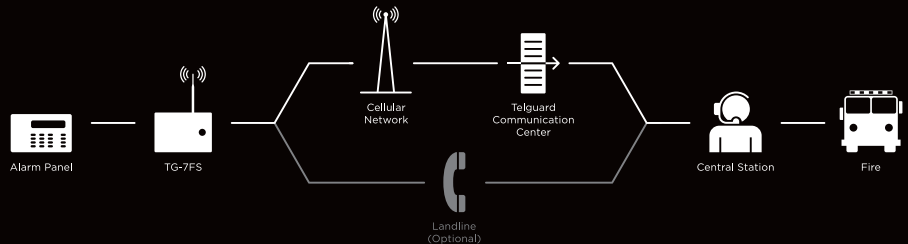
- Dual band cellular and PCS.
- GSM 850MHz: Class 4 (2 watts).
- GSM 1900MHz: Class 1 (1 watt).
- Antenna: 9" dipole with 2dBi gain, 12 ft of cable and universal mounting bracket.
- FCC part 15, 22, 24 and 68 compliant.

## Physical Details

- TG-7FS: 7.5" H x 11.5" W x 3.5" D
- Shipping Weight: 8lbs
- Operating Environment: 0°C to +50°C; up to 95% humidity (non-condensing).

## Standard Features

- Full data reporting.
- Automatic self-test (5 min. & daily).
- Power supply with battery harness.
- Locking, red metal enclosure.
- Two programmable supervisory trip outputs.
- Alarm format support for SIA2, Contact ID, pulse (3x1, 4x2), modem IIe, & IIIa2, DMP.
- Telephone line monitor built-in, with Standard Line Security.



Telguard technology allows full data reporting for unlimited point-to-point signal details and maximum transmitting power for superior in-building penetration.

Telguard products are easy to install, economical, and UL Listed.

## Accessories

- ACD 12, ACD 35, ACD 50, ACD 100: 12/35/50/100 feet of low loss, high performance cable.
- HGD-0: High gain directional antenna.
- EXD-0: External antenna.

## UL Listings

**Commercial Fire**  
864 • Control units & accessories for fire alarm systems

**Commercial Burglary**  
365 • Police Station connected burglar alarm units and systems  
1610 • Central station burglar alarm units

**Residential**  
985 • Household fire warning systems  
1023 • Household burglar alarm systems





## NOTICE OF AUTHORIZATION TO APPLY THE UL MARK

11/11/2010

Telular Corp  
Mr. RAJ KOSARAJU  
Suite 4300  
311 S Wacker Dr  
Chicago IL 60606, Us

Our Reference: File S5052, Vol. TO BE DETERMINED Project Number 10CA43366  
Your Reference: RKOSARAJU 08232010  
Project Scope: Models TG7GFS03 & TCM Evaluated to UL864, 9th Edition

Dear Mr. RAJ KOSARAJU:

UL's investigation of your product(s) has been completed under the above Reference Number and the product was determined to comply with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark only at authorized factories under UL's Follow-Up Service Program.

To provide the manufacturer with the intended authorization to use the UL Mark, the addressee must send a copy of this notice to each manufacturing location currently authorized in File S5052, Vol. TO BE DETERMINED.

This authorization is effective from the date of this Notice and only for products at the indicated manufacturing locations. Records in the Follow-Up Services Procedure covering the product are now being prepared and will be sent in the near future. Until then, this letter authorizes application of the UL Mark for 90 days from the date of this letter.

Products that bear the UL Mark shall be identical to those that were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, appropriate action will be taken for products not in conformance with UL's requirements and continued use of the UL Mark may be withdrawn. UL may elect to withdraw use of the UL Mark if the Applicant or Manufacturer fails to comply with UL's requirements including ongoing compliance of the product, under UL's Follow-Up Service.

Any information and documentation provided to you involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

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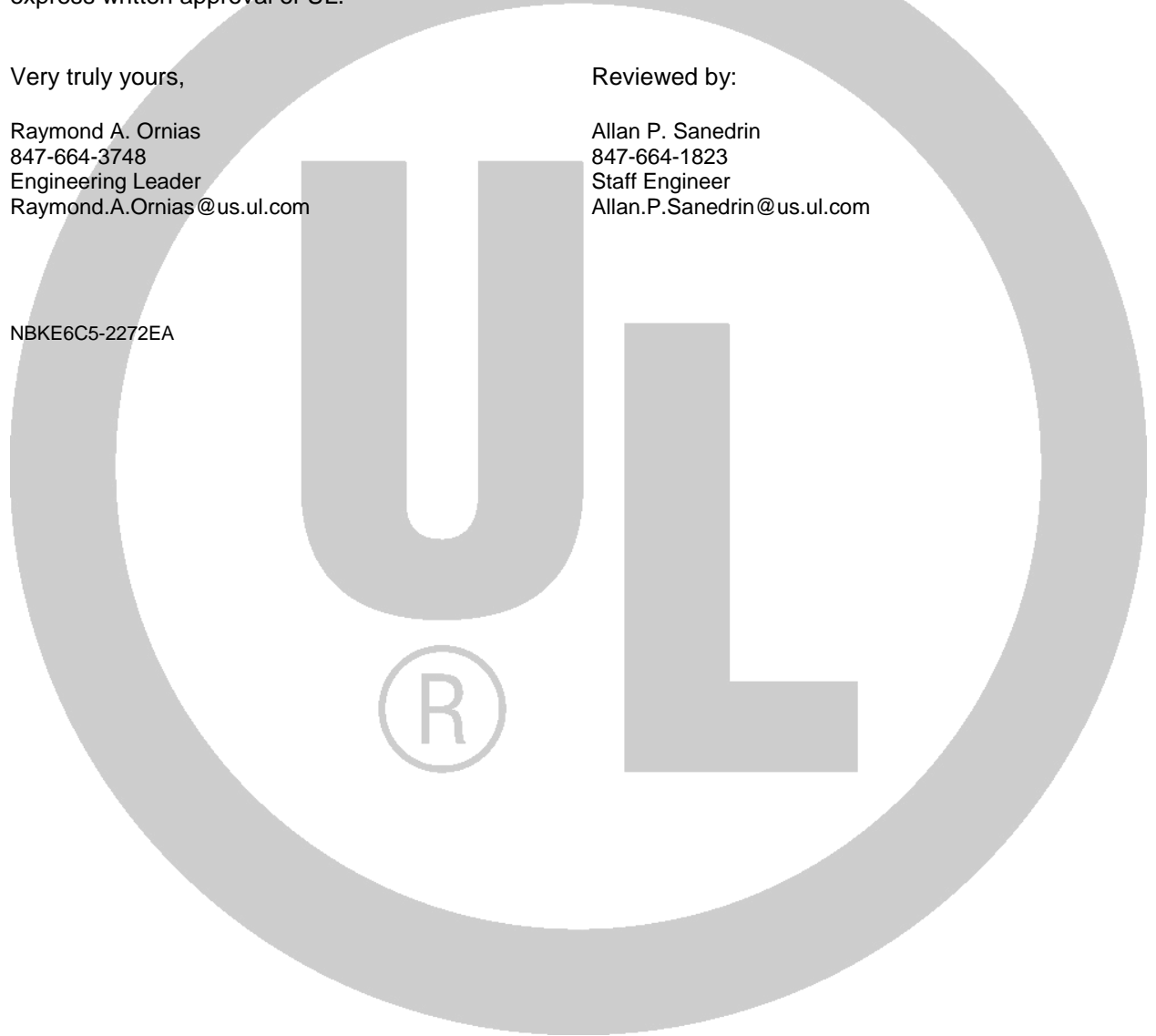
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NBKE6C5-2272EA





## UOXX.S5052 Control Unit Accessories, System

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### Control Unit Accessories, System

[See General Information for Control Unit Accessories, System](#)

**TELULAR CORP**

S5052

SUITE 4300  
311 S WACKER DR  
CHICAGO, IL 60606 USA

**Control unit accessories: Digital alarm communicator cellular transmission devices**, Model(s) TG7GFS03, TG8GA001(c)

**Equipment, Control unit accessory**, Model(s) Model TG7GFS03, digital alarm communicator cellular transmission devices for use with separately Listed control units with integral or Listed remote DACT.

(c) - For use with separately Listed control units with integral or Listed remote DACT.

[Last Updated](#) on 2010-12-10

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CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
FIRE ENGINEERING - BUILDING MATERIALS LISTING PROGRAM



# LISTING SERVICE

**LISTING No.** 7300-1402:0108 Page 1 of 1

**CATEGORY:** 7300 -- FIRE ALARM CONTROL UNIT ACCESSORIES/MISC. DEVICES

**LISTEE:** TELULAR CORP2727 Paces Ferry Rd., Suite 1-800, Atlanta, GA 30339  
Contact: Raj Kosaraju (678) 264-2012 Fax (678) 264-2062  
Email: rkosaraju@telular.com

**DESIGN:** Models TG7G0002, TG7G0003, TG7GA002, TG7GA003, and TG7GFS03 digital cellular radio alarm transmission system for fire/burglar alarm system control units.

Models TG7G0002 and TG7G003 consisting of subassembly models TGKIT001 and 77016100 standard enclosure. Models TG7GA002, TG7GA003, consisting of subassembly models TGKT001 and 77013500 attack resistant enclosure, communicator system.

Refer to listee's printed data sheet for additional detailed product description and operational considerations.

**RATING:** 120 VAC, 12 VDC

**INSTALLATION:** In accordance with listee's printed installation instructions, applicable codes and ordinances and in a manner acceptable to the authority having jurisdiction. The fire alarm control unit and units must be installed in the same room. For indoor use only.

**MARKING:** Listee's name, model number, and UL label.

**APPROVAL:** Listed as a digital cellular radio alarm transmission device to provide a primary transmission path (cellular) for connection to a listed compatible fire and burglar alarm control unit with integral digital alarm communicator transmitter (DACT). Models TG7G0002 and TG7G0003 are intended for residential application. Models TG7GA002, TG7GA003, and TG7GFS03 are intended for residential and commercial applications. Refer to listee's Installation Instruction Manual for details.

**NOTE:** Burglary and other non-fire functions were not examined.

02-09-11 bh



This listing is based upon technical data submitted by the applicant. CSFM Fire Engineering staff has reviewed the test results and/or other data but does not make an independent verification of any claims. This listing is not an endorsement or recommendation of the item listed. This listing should not be used to verify correct operational requirements or installation criteria. Refer to listee's data sheet, installation instructions and/or other

Date Issued: **July 01, 2011**

Listing Expires **June 30, 2012**

Authorized By: **FRANCIS MATEO, Program Coordinator**  
*Fire Engineering Division*