



EMC Testing/Engineering Services



NVLAP ACCREDITED
NARTE Certified Engineer
Professional Engineer

ELITE Electronic Engineering

TCB Services
1516 Centre Circle
Downers Grove, IL 60515-1082

Re: Application for Certification of Johnson Controls Transmitter under 47CFR 15.231.
FCC ID: **CB2ZH29HL3P**

Gentlemen:

On behalf of the applicant, Johnson Controls Interiors, LLC, please find attached the submittal materials for certification of the JCI Integrated 433.92MHz Receiver, Universal Garage Door Opener, Model ZH29HL3P. This model, a part of their Homelink® III series, is capable of learning the current garage door transmit frequencies from 288MHz through 420MHz except in the forbidden frequency regions. This model incorporates a 433.92MHz Pressure System Information (PSI) Receiver which receives the tire pressure status from transmitters located in the vehicle tires and alerts the driver of any underpressure condition.

The complete List of the Exhibits in this submittal package appears on Page 2 of this cover letter.

Johnson Controls Interiors has invested considerable resources into developing this Homelink® series. Having the listed exhibits available to 'competition' would negate the advantage achieved in developing this product. Since their Homelink® series transmitters will be a major product line for Johnson Controls Interiors, not protecting the details of the design will result in a financial hardship for the company.

Pursuant to 47CFR 0.459, Johnson Controls Interiors requests that these listed exhibits be held confidential.

Circuit Block Diagrams	page 2 of Exhibit B
Theory/Description of Operation,	page 3 of Exhibit B
Schematics	page 5 of Exhibit B

Your prompt consideration of this application for product certification will be greatly appreciated. Should you have any questions regarding the content of this report, kindly contact me.

Sincerely,

Ted Chaffee,
Technical Lab Manager
Narte Certified Engineer, #EMC-002025-NE
tel/fax: 616. 424.7014
email: tchaffee@ahde.com, or ahd@locallink.net

Table of Contents

Cover Letter / Table of Contents		Total Pages	2
EXHIBIT A:			
	ID Label / Location [2.925,2.926,2.1033(b2,7),15.19(a3)]	Total Pages	2
EXHIBIT B:			
	Description of Product [2.1033(b6)]	Total Pages	1
	Circuit Block Diagram [2.1033(b5)] EXB_Block_diagram.pdf	Total Pages	1
	Description of Operation [2.1033(b4)]	Total Pages	2
	Schematics [2.1033(b5)] EXB_Schematic.pdf	Total Pages	1
EXHIBIT C:			
	Product photos	Total Pages	7
	Exterior views [2.1033(b7)] Two photos		
	EXC_EUTbtm.jpg, EXC_EUTtop.jpg		
	Interior & Printed Circuit Boards [2.1033(b7)] Four photos		
	EXC_EUTin1.jpg EXC_EUTin2.jpg		
	EXC_PCBtop.jpg, EXC_PCBbtm.jpg, ,		
EXHIBIT D:			
	User's Manual EXD_OEMUserManual1.doc	Total Pages	4
EXHIBIT E:			
	Setup photos [2.1033(b8)] Four photos	Total Pages	5
	EXE_pretest.jpg, EXE_side.jpg, EXE_end.jpg, EXE_flat.jpg		
	Report of Measurements [2.1033(b6)]	Total Pages	28
	Table of Contents	Page	2
	Manufacturer/Applicant [2.1033(b1)]	Page	4
	Measurement/Test Facility & Equipment	Page	4
	Configuration/Setup [2.1033(b8)]	Page	5
	Test Standards / Methods Used [2.1033(b6)]	Page	7
	Test Methodology [2.1033(b6)]	Page	7
	Test Data [2.1033(b6)]		
	Summary of Results	Page	6
	Level vs Supply Voltage [15.31(e)]	Page	13
	Occupied Bandwidth	Page	14
	Radiated Field Strength [15.231(b)]	Page	16
Misc. EXHIBIT:			
	Tuning Information [2.1033(b5)]	Total Pages	1
	RF Exposure Information [2.1093(c)]	Total Pages	1