

**Notified Body  
Number 1177**



**NOTIFIED BODY STATEMENT OF OPINION**

**R&TTE DIRECTIVE 1999/5/EC  
Conformity assessment procedure Article 10(4) and Annex IV**

**PRODUCT DESCRIPTION**

Manufacturer Name	:	SENA TECHNOLOGIES, INC.
Manufacturer Address	:	210 YANGJAE-DONG SEOCHO-GU SEOUL, 137-130 KOREA
Brand/Trade Name	:	SENA
Model/Type Designation	:	Parani-ESD1XXV2/Parani-ESD110V2/Parani-ESD100V2
Product Description	:	BLUETOOTH MODULE
Product Specifications	:	See ANNEX 1

**TECHNICAL CONSTRUCTION FILE**

Applicant Name	:	SENA TECHNOLOGIES, INC.
Applicant Address	:	210 YANGJAE-DONG SEOCHO-GU SEOUL, 137-130 KOREA
Signed by	:	SEUNG-HYUN KIM/ASSOCIATE RESEARCH ENGINEER
Date	:	2009-09-07
TCF Identification	:	RTTE-S0909D

**TIMCO NOTIFIED BODY STATEMENT OF OPINION**

Issued by	:	Notified Body 1177, TIMCO Engineering, Inc.
Date	:	September 8, 2009
Opinion number	:	TCF-2166KC9
On behalf of	:	The President of TIMCO Engineering, Inc.
Signature	:	<i>Bruno Clavier</i>
Name	:	Bruno Clavier

The device shall be marked as follows:



THIS STATEMENT OF OPINION HAS 1 ANNEX.

Based on the evidence presented in the Technical Construction File, TIMCO Engineering, Inc., as appointed Notified Body (number 1177), has given a positive opinion that the product described is in conformity with the essential requirements Article 3.2 of R&TTE Directive 1999/5/EC.

<b>TIMCO ENGINEERING, INC.</b> P.O. BOX 370 NEWBERRY, FL 32669 Tel.: 1-888-472-2424 Fax: 1-352-472-2030 E-mail: TEI@TIMCOengr.com	Designated as a U.S. CAB by <b>NIST National Institute of Standards and Technology</b> An agency of the U.S. Commerce Department	This Opinion is issued under the provision that TIMCO Engineering Inc. nor its subsidiary companies accept any liability concerning the contents of this document other than forced by law. Reproduction of the Opinion (with Annex) in full is allowed. Reproduction of parts of this certificate may only be allowed by written permission of TIMCO Engineering, Inc.
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## ANNEX 1 TO STATEMENT OF OPINION

### TCF-2166KC9

Date: September 8, 2009

#### PRODUCT SPECIFICATIONS

Intended Use/Category :	SRD – Wideband data transmission system (Bluetooth)
RF output power :	19.33dBm EIRP
Frequency band (MHz) :	2402-2480
Modulation :	FHSS (GFSK, DQPSK, 8DPSK)
Antenna type :	Dipole antenna (M/N: R-AN2400-1901RS) Max Gain 5.02 dBi Dipole antenna (M/N: R-AN2400-5801RS) Max Gain 3.17 dBi Helical antenna (M/N: AN2400-3306RS) Max Gain 1.40 dBi Chip antenna (M/N: SENA_009) Max Gain -0.1 dBi
Duty cycle (%) :	81.62

**TCB**

**GRANT OF EQUIPMENT  
AUTHORIZATION**

**TCB**

**Certification  
Issued Under the Authority of the  
Federal Communications Commission**

**By:**

**Timco Engineering, Inc.  
849 NW State Road 45  
P.O. Box 370,  
Newberry, FL 32669**

**Date of Grant: 09/14/2009**

**Application Dated: 09/11/2009**

**Sena Technologies, Inc.  
210 Yangjae-dong Seocho-gu  
Seoul, 137-130  
South Korea**

**Attention: YOUNGSAM KIM , Vice President**

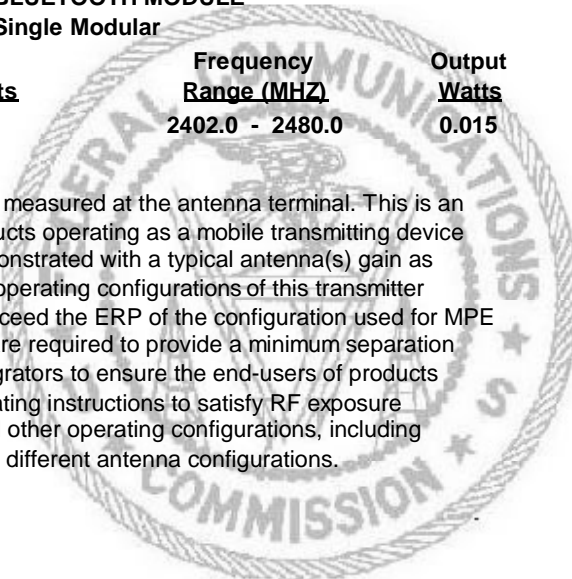
**NOT TRANSFERABLE**

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

**FCC IDENTIFIER:** S7APARANIESD1XXV2  
**Name of Grantee:** Sena Technologies, Inc.  
**Equipment Class:** Part 15 Spread Spectrum Transmitter  
**Notes:** BLUETOOTH MODULE  
**Modular Type:** Single Modular

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	15C	2402.0 - 2480.0	0.015		

Modular approval. Power output is conducted and measured at the antenna terminal. This is an OEM transmitter module approved for use in products operating as a mobile transmitting device with respect to 2.1091. MPE compliance was demonstrated with a typical antenna(s) gain as shown in the filing. Final antenna installation and operating configurations of this transmitter including antenna gain and cable loss must not exceed the ERP of the configuration used for MPE compliance. Products operating with this module are required to provide a minimum separation distance. Grantee must coordinate with OEM integrators to ensure the end-users of products operating with this module are provided with operating instructions to satisfy RF exposure requirements. Separate approval is required for all other operating configurations, including portable configurations with respect to 2.1093 and different antenna configurations.



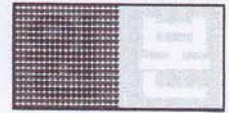
## Certificate of construction type

<b>Applicant</b>	<b>Sena Technologies, Inc.</b>
<b>Type of specified radio equipment</b>	<b>Technical Regulations for Specified Radio Equipmen Article 2, Section 1 (19)</b>
<b>Types of radio wave, Frequency and Antenna power</b>	<b>F1D 2402 - 2480MHz (1MHz ch. separation 79 waves), 0.00015W/MHz G1D 2402 - 2480MHz (1MHz ch. separation 79 waves), 0.0002W/MHz</b>
<b>Model or Product name</b>	<b>Panari-ESD1XXV2</b>
<b>The number of construction design certificate</b>	<b>010WWBT0022</b>
<b>Date of certified</b>	<b>25<sup>th</sup> September 2009</b>
<b>Remark</b>	

**This radio equipment is accredited in accordance with the Japanese Radio Law Article 38, Section 24 (1)**

**TÜV SÜD Ohtama, Ltd.**





# 방송통신기기인증서

## Certificate of Broadcasting and Communication Equipment

인증의 종류 <i>Certification Type</i>	형식등록(Type Registration)
상호 또는 성명 <i>Trade Name or Applicant</i>	(주)세나테크놀로지
기기의 명칭 <i>Equipment Name</i>	특정소출력무선기기(무선데이터통신시스템용 무선기기)
기본모델명 <i>Basic Model Number</i>	Parani-ESD1XXV2
파생모델명 <i>Series Model Number</i>	Parani-ESD110V2, Parani-ESD100V2
인증번호 <i>Certification No</i>	SNA-ParaniESD1XXV2
제조사/ 제조국가 <i>Manufacturer/Country of Origin</i>	(주)세나테크놀로지/한국
형식기호 <i>Type Identification</i>	LARN8-IO3S2402/2480TR0.0005F1DG1D79
인증연월일 <i>Date of Certification</i>	2009년(Year) 09월(Month) 07일(Date)
기타 <i>Others</i>	

위 기기는 「전기통신기본법」, 「전파법」에 따라 인증되었음을 증명합니다.  
It is certified that foregoing equipment has been certificated under the Framework Act on Telecommunications and Radio Waves Act.

2009년(Year) 09월(Month) 07일(Date)

전파연구소장



Director General of Radio Research Laboratory

Korea Communications Commission Republic of Korea

\* 진위여부는 [www.ekcc.go.kr](http://www.ekcc.go.kr)에서 확인할 수 있습니다.

\* 복사본은 상단 복사방지마크의 '원' 또는 '본' 글자가 사라집니다.

