




# CERTIFICATE NCS/FI 21978 A2

Our Ref. 239166

<b>Product</b>	Optocoupler
<b>Type</b>	FOD814, FOD815, FOD816, FOD817, FOD617, FOD852, FOD814A, FOD817A, FOD817B, FOD817C, FOD817D, FOD617A, FOD617B, FOD617C, FOD617D, H11AA814, H11AA814A, H11B815, H11A817, H11A817A, H11A817B, H11A817C, H11A817D, H11A617, H11A617A, H11A617B, H11A617C, H11A617D, FOD817X
<b>Trade mark</b>	F
<b>Certificate Holder</b>	Fairchild Semiconductor 3001 Orchard Parkway San Jose, CA 95134, UNITED STATES
<b>Manufacturer</b>	Fairchild Semiconductor 3001 Orchard Parkway San Jose, CA 95134, UNITED STATES
<b>Technical information</b>	Operating temperature : Models FOD817 series and FOD617 series 110 °C FOD814 series, FOD815 series, FOD816 series and FOD852 series 105 °C H11AA814 series, H11A617 series, H11A817 series and H11B815 series 100 °C
<b>Other information</b>	Above mentioned models are marked on the components as 814, 815, 816, 817 or 852.
<b>The product is certified according to the following standard(s)</b>	EN 60950-1:2001
<b>Validity</b>	This certificate is valid until 31 December 2010 unless the standard in question has been amended or superseded with significant changes in requirements, in which case, SGS Fimko has the right to shorten the validity of the certificate based on the legislation of the European Union. This certificate includes the right to use the FI mark under the condition that changes (if any) will be checked at SGS Fimko before the product is brought onto market and that the conditions for FI certification are met.
<b>Date of issue</b>	29 April 2009
<b>Signature</b>	<b>SGS Fimko Ltd</b>  Tom Törn Director, Certification Services



This certificate has 1 appendix



This certificate is issued by the company under its General Conditions for Certification Services accessible at [www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). Attention is drawn to the limitations of liability defined therein and in the Test Report here above mentioned which findings are reflected in this certificate. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**Manufacturing site(s)**

Lite-On Electronics (Thailand) Co., Ltd.  
38/4 Moo 1, Rangsit-Ongkarak Road, Bungyeetoh, Thanyaburi,  
PHATHUMTHANI 12130, THAILAND

Lite-On Electronics Inc. (TianJin)  
No. 11 Fu-Yuan Road, Wuqing Development Area, TIANJIN CITY 301700,  
CHINA

**Additional information**

The following tests have been performed with positive result:

- Distance through insulation between input and output is more than 0.4 mm; measured a minimum of 0.7 mm
- External creepage distances/clearances between input and output are more than 5 mm/4 mm; measured a minimum of 7.8 mm / 7.4 mm.
- Internal creepage distances between input and output are more than 4 mm; measured a minimum of 5.2 mm.
- Insulation between the input and output withstands electric strength test of 3000 V/1 minute; it withstands also electric strength test of 5000 V/1 minute.
- Enclosure of the component withstands electric strength test of 1500 V/1 minute and it fulfils the requirement of basic insulation.
- Enclosure of the component is made of class V-0 material.

After judgement from case to case, the optocoupler can bridge basic, supplementary, double or reinforced insulation, provided that the ratings in data sheet are not exceeded in normal operation or under fault condition in the appliance.

This certificate replaces previous certificate FI 21978 A1, issued 13 September 2005. A new model FOD817X has been added.

**Our ref.**

239166-5

Supplement to Certificate: **NCS/FI 21978 A2**

Internal ref.  
Matti Huttunen

29 April 2009

## NORDIC CERTIFICATION SERVICE

We hereby confirm that the product(s) appearing from the certificate with above certificate reference also comply(ies) with requirements for secondary certification in the following countries: Denmark, Norway, Sweden

### NOTIFICATION

<b>Certificate holder for Denmark</b>	Fairchild Semiconductor 3001 Orchard Parkway San Jose, CA 95134, UNITED STATES
<b>Certificate holder for Norway</b>	As above
<b>Certificate holder for Sweden</b>	As above Attn: Mai Hashimoto (mai.hashimoto@fairchildsemi.com) Please send the invoice and the certificate directly to: SGS Fimko Ltd.
<b>Safety standard(s) applied</b>	EN 60950-1:2001
<b>EMKO TS document(s) considered</b>	Not applicable
<b>EMC requirements</b>	-
<b>The assignment is based on</b>	Testing in own premises
<b>Limitations or reservations regarding the testing / examination performed</b>	None
<b>Certification marks</b>	Affixing of the certification mark(s) of the Nordic body(ies) on the product must not take place before notice about national certification is received from the individual body.
<b>Production surveillance</b>	Will be carried out by SGS Fimko according to agreed procedures.
<b>Other information</b>	Copy of the certificate, this Notification and other agreed documentation are transferred directly from SGS Fimko to DEMKO, NEMKO and SEMKO.
<b>Test samples must be submitted to the secondary body(ies)</b>	No
<b>Date of issue</b>	29 April 2009

This Notification may be challenged if it is more than 3 years old.

**SGS Fimko Ltd**

Signature



Tom Törn  
Director, Certification Services