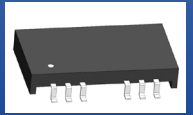


# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



ALANL100X1



12.7 x 7.1 x 2.1 mm  
RoHS/RoHS II Compliant  
MSL = 1

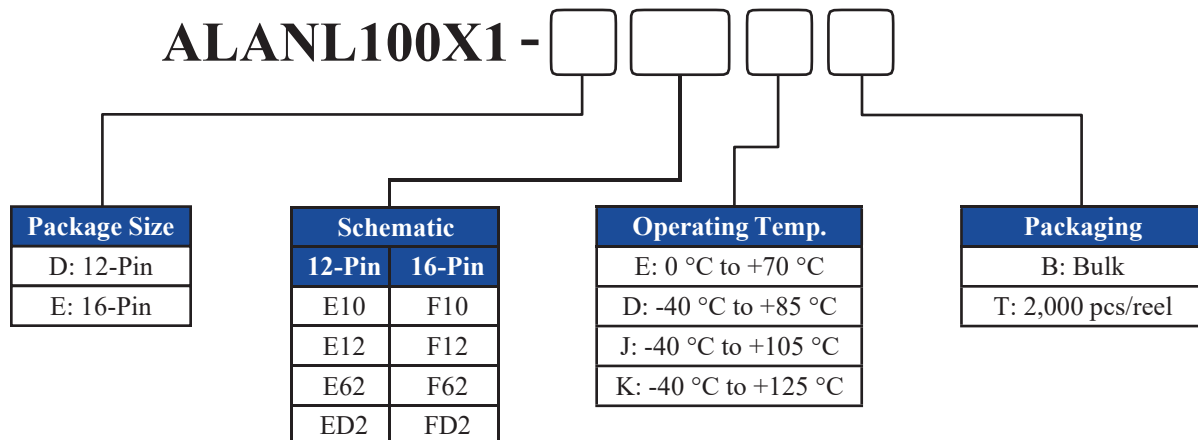
## Features

- Low Profile of 2.15 mm
- Meets IEEE 802.3u standards
- Compatible with 10 BASE-T and 100 BASE-TX
- RoHS Compliant
- High performance magnetics for EMI suppression and common mode noise rejection
- 1CT:1CT TX and RX Transformers

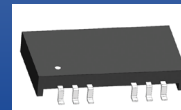
## Applications

- Fast Ethernet
- IP cameras, surveillance, and IP phone
- Industrial computers and robotics
- PC Card and Cardbus

## Part Identification



# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



ALANL100X1



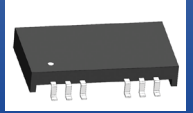
12.7 x 7.1 x 2.1 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Electrical Specifications at 25°C

Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				Crosstalk (dB Min)			CMRR (dB Min)			DCMR (dB Min)		
	0.5-100 MHz	1-40 MHz	60 MHz	80 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz	30 MHz	60 MHz	100 MHz
ALANL100X1-DE10	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-DE12	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-DE62	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-DED2	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-EF10	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-EF12	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-EF62	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33
ALANL100X1-EFD2	1.2	18	14.4	12	10	45	40	35	43	37	33	43	37	33

Part Number	Inductance (uH Min)	Leakage Inductance (uH Max)	Interwinding Capacitance (pF Max)	DC Resistance (Ω Max)		Hi Pot (Vrms)	Weight (g)
				TD+ to TD-	MX+ to MX-		
Test Condition	@100kHz, 0.2V, 8mA DC Bias	@100kHz, 0.1V TD to MX	@100kHz, 0.1V TD to MX	TD+ to TD-	MX+ to MX-	0.5mA/6 sec.	Per Piece
ALANL100X1-DE10	350	0.5	30	1.0	1.5	1500	0.33
ALANL100X1-DE12	350	0.5	30	1.0	1.5	1500	0.33
ALANL100X1-DE62	350	0.5	30	1.5	1.0	1500	0.33
ALANL100X1-DED2	350	0.5	30	1.5 (1-2, 7-8)	1.0 (5-6, 11-12)	1500	0.33
ALANL100X1-EF10	350	0.5	30	1.0	1.5	1500	0.33
ALANL100X1-EF12	350	0.5	30	1.0	1.5	1500	0.33
ALANL100X1-EF62	350	0.5	30	1.5	1.0	1500	0.33
ALANL100X1-EFD2	350	0.5	30	1.5 (1-2, 9-10)	1.0 (7-8, 15-16)	1500	0.33

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



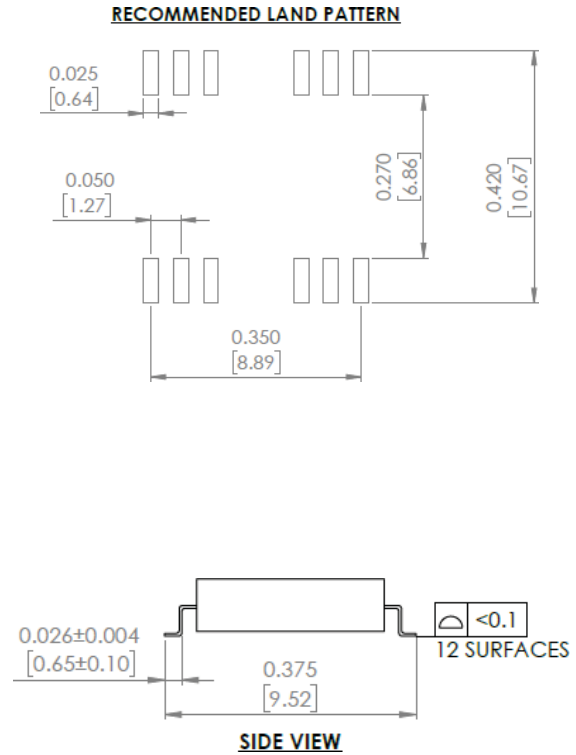
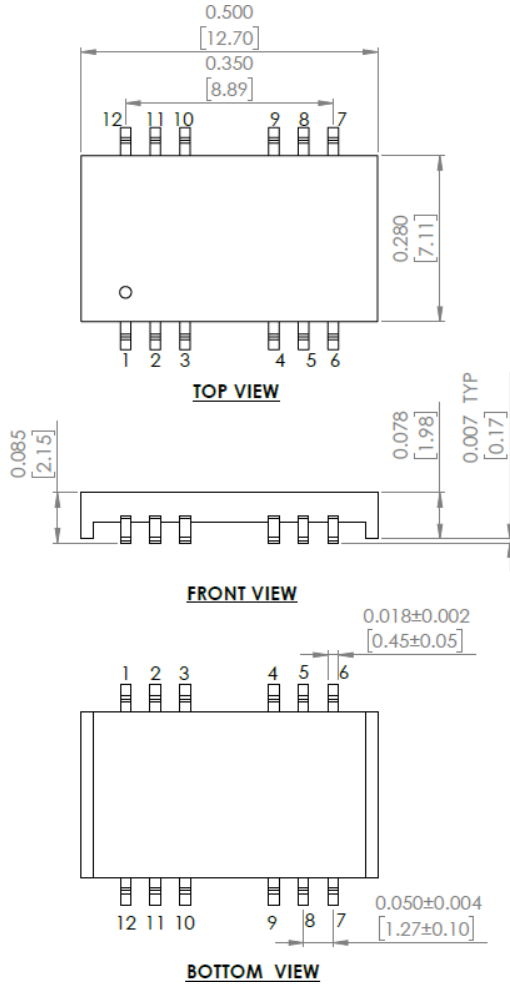
ALANL100X1



12.7 x 7.1 x 2.1 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Mechanical Dimensions

**D: 12-pin**



Unless otherwise specified, all tolerances are ±0.25 in mm  
 Dimensions: inch/ [mm]

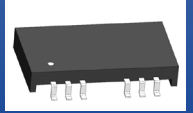


5101 Hidden Creek Ln Spicewood TX 78669  
 Phone: 512-371-6159 | Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 03-02-22

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



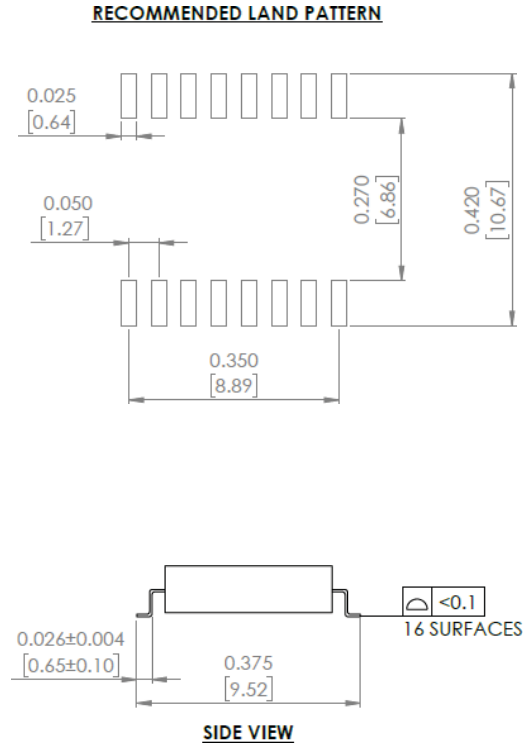
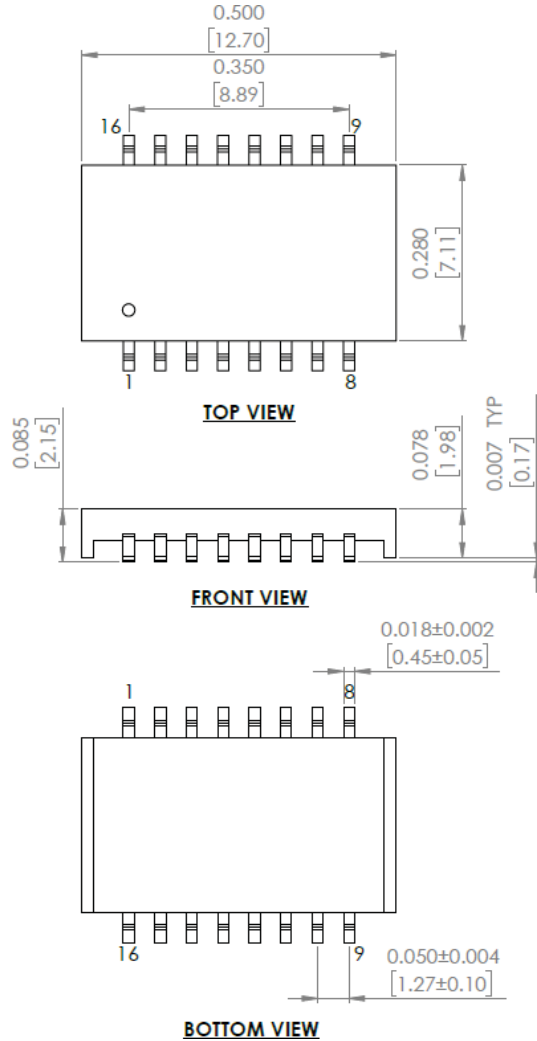
ALANL100X1



12.7 x 7.1 x 2.1 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

**E: 16-pin**



Unless otherwise specified, all tolerances are ±0.25 in mm  
Dimensions: inch/ [mm]

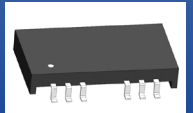


5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 03-02-22

ABRACON IS  
ISO9001-2015  
CERTIFIED

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



ALANL100X1

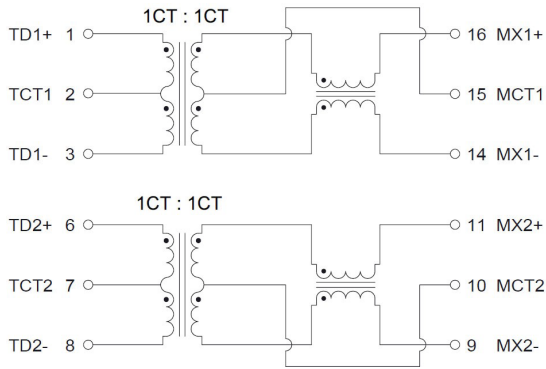


12.7 x 7.1 x 2.1 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

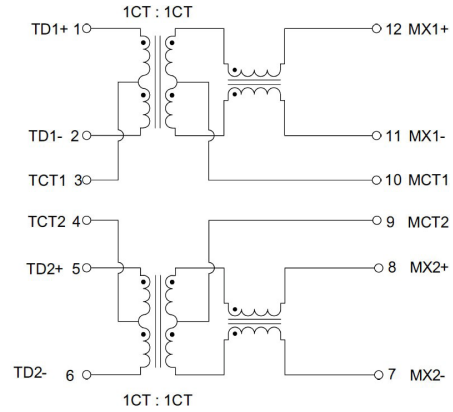
## Schematics

### 12-Pin

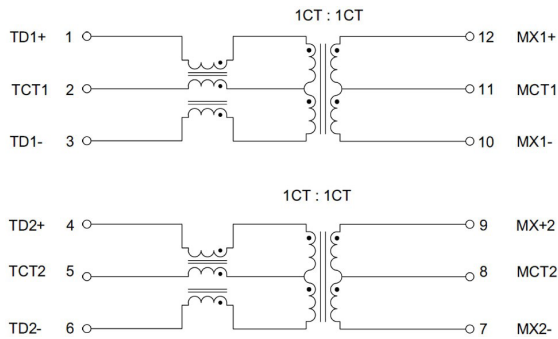
#### E10



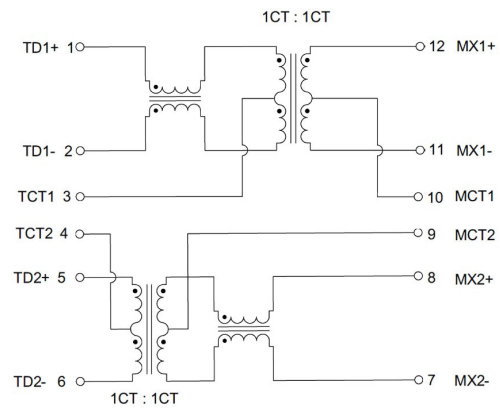
#### E12



#### E62



#### ED2



Contact Abracon for additional options.

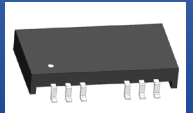


5101 Hidden Creek Ln Spicewood TX 78669  
 Phone: 512-371-6159 | Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 03-02-22

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



ALANL100X1

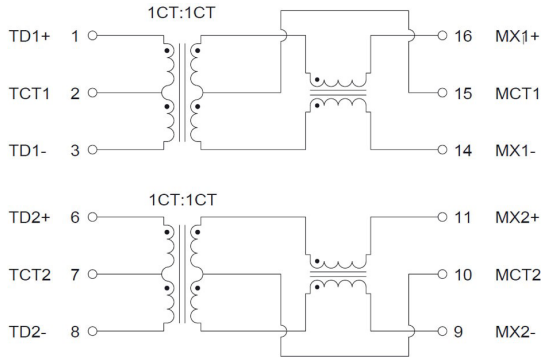


12.7 x 7.1 x 2.1 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

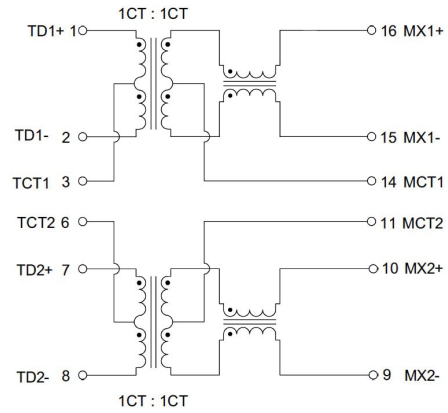
## Schematics

### 16-Pin

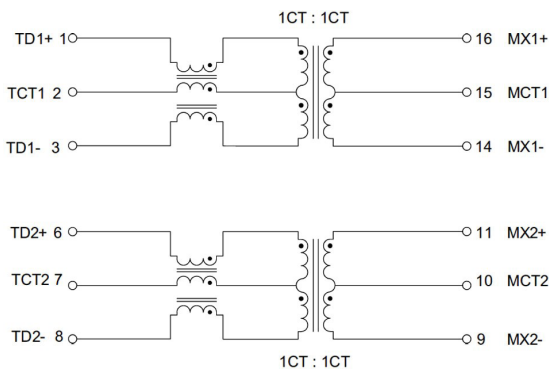
**F10**



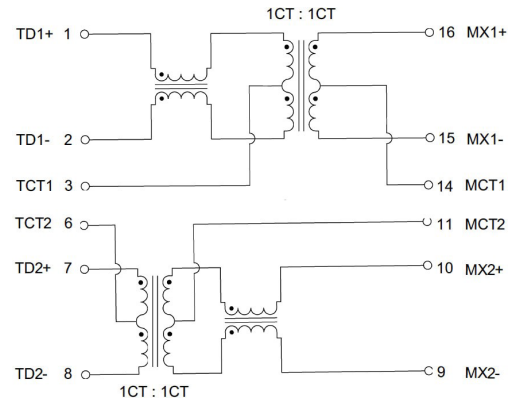
**F12**



**F62**



**FD2**



Contact Abracon for additional options.

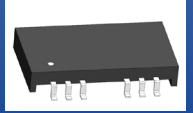


5101 Hidden Creek Ln Spicewood TX 78669  
 Phone: 512-371-6159 | Fax: 512-351-8858  
 For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 03-02-22

ABRACON IS  
 ISO9001-2015  
 CERTIFIED

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module

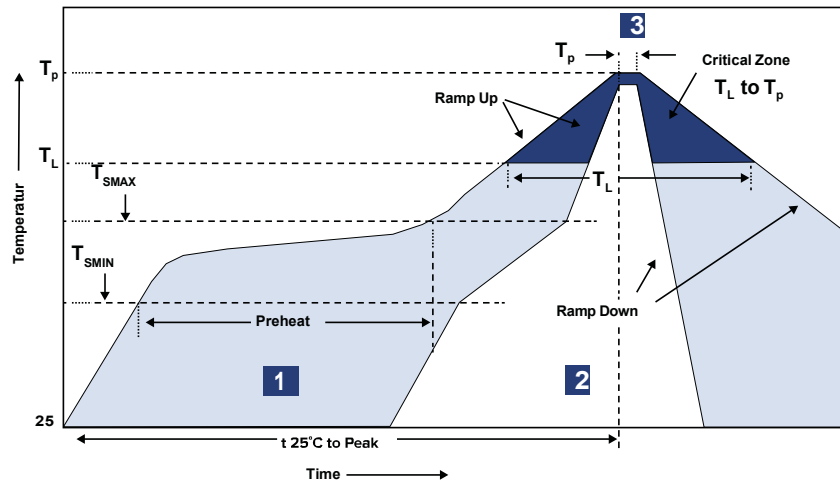


ALANL100X1



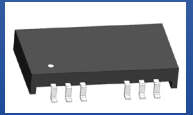
12.7 x 7.1 x 2.1 mm  
 RoHS/RoHS II Compliant  
 MSL = 1

## Reflow Profile



Zone	Description	Temperature	Time
1	Preheat / Soak	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	$T_L$ 217°C	60 ~ 150 sec.
3	Peak heat	$T_P$ 240°C ± 5°C	20 ~ 40 sec.

# 10/100 BASE-TX Low Profile SMD LAN Transformer Module



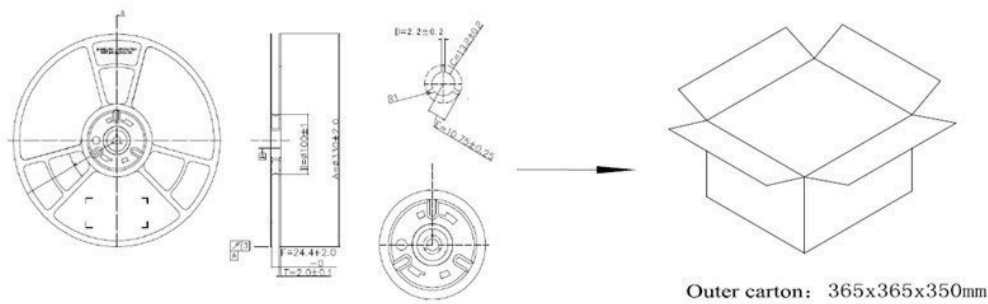
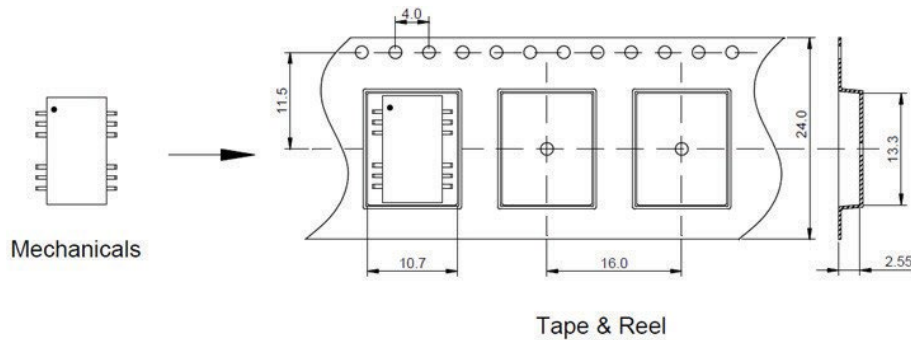
ALANL100X1



12.7 x 7.1 x 2.1 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Packaging

Tape and Reel: 2,000 pcs  
Pieces per Carton: 20,000 pcs/box  
T&R per Carton: 10 T&R/box  
Weight per Carton: 13.3kg  
Weight per Piece: 0.33g



Dimensions: mm

**ATTENTION:** Abracon LLC's products are COTS - Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln Spicewood TX 78669  
Phone: 512-371-6159 | Fax: 512-351-8858  
For terms and conditions of sales, please visit:  
[www.abracon.com](http://www.abracon.com)

REVISED: 03-02-22

ABRACON IS  
ISO9001-2015  
CERTIFIED