



- Fast throughput – each card display can be printed in just 3 seconds
- USB interface option allows high speed data transfer enabling download of full graphical card data in approximately 15 seconds
- Mechanism version (TCM300) available
- Clamshell™ Type design allows for easy maintenance and “cleaning” indicator warns of optimum time to run head cleaning cycle to obtain highest resolution print outs

TCP300 II Series

A “thermochromic” visual and magnetic card reader / writer system which can be used to erase and re-write / print up-to-date information, loyalty points and special promotions on the front of a low cost thin PET card or paper ticket (incremental write only).

The back of the card can be used to encode holder information and points etc. on an ISO standard 3 track magnetic stripe or can be used in a “customised” format as the entire back of the card can be magnetically programmed.

SPECIFICATIONS

TCP300 II Media Technology	PET (Thin Type Card) Single use Paper Card for ticketing etc.
Output Colour	Blue or Black output dependant on card coating. <i>(Note – new colours are being introduced by the card manufacturers)</i>
Card / Media Thickness / Size	0.18 – 0.33 mm; 85.6 x 54 mm
Print Area	480 x 320 dots, max. 20 characters x 13 lines
Print Type	Alphanumeric, Chinese characters (GB, Big5) External characters, Graphics
Dot Pitch	Vertical: 0.125mm; Horizontal: 0.121mm
TCP300 II Reader / Writer	
Card Feed Speed	up to 400mm/second
Dual Interface	USB 2.0 & RS232C serial as standard with Ethernet option
Magnetic Stripe Read / Write	1 Track or 3 Tracks; JIS2 / ISO
System Reliability	500,000 Card Pass under normal conditions
Operating Conditions	5 to 35°C, 20 – 80% RH (w/o condensation)
Storage Conditions	-30 to 65°C, 20 – 90% RH (w/o condensation)
Dimensions / Weight	119 (W) x 272 (D) x 132.5 (H) mm / approx. 2.5Kg

Please note, specifications may be subject to change.



- Standard 0.76mm cards can be re-written up to 500 times in just 5 seconds, producing high quality text and graphics including barcodes and photos
- Clamshell™ Type design for easy maintenance with automatic indicators to warn customers of optimum time to run head cleaning cycle
- USB & RS232C Interfaces, Ethernet Optional
- Can be rewritten up to 500 times
- ISO Standard 3 Track magnetic stripe (LoCo and HiCo Standards)

TCP400 Series

A “thermochromic” visual and magnetic card reader / writer system which can be used to erase and re-write / print up-to-date information, loyalty points and special promotions on the front of an industry standard 0.76mm Leuco card. The unique dual pass head can provide clear text at 30mm per second with a lower, high quality output speed for barcodes, photographic reproduction or other high quality output.

SPECIFICATIONS

TCP400 Card	Leuco based Technology
Output Colour	Blue or Black output dependant on card coating. <i>(Note – new colours are being introduced by the card manufacturers)</i>
Card Thickness / Size	0.68 – 0.84 mm; 85.6 x 54 mm
Card Display Re-Write Speed	30mm / second
High Quality Print Mode	Dual pass process for security photographs etc.
Re-Writable Card Display Area	66.8 x 40mm (width x depth) / 320 x 552 dots (one side)
Print Type	Alphanumeric, Chinese characters (GB, Big5)
Print Resolution / Dot Pitch	203 dpi / Vertical: 0.125mm; Horizontal: 0.121mm
Card Life	500 insertions (300 insertions with barcode use)
TCP400 Reader / Writer	
Card Feed Speed	up to 300mm/second with two quality modes
Dual Interface	USB 2.0 & RS232C serial as standard with Ethernet option
Magnetic Stripe Read / Write	1 Track or 3 Tracks; JIS2 / ISO
System Reliability	300,000 Card Pass under normal conditions
Print Head / Eraser Life	100,000 re-writes
Operating Conditions	5 to 35°C, 20 – 80% RH (w/o condensation)
Storage Conditions	-30 to 65°C, 20 – 90% RH (w/o condensation)
Dimensions / Weight	119 (W) x 272 (D) x 132.5 (H) mm / approx. 2.5Kg

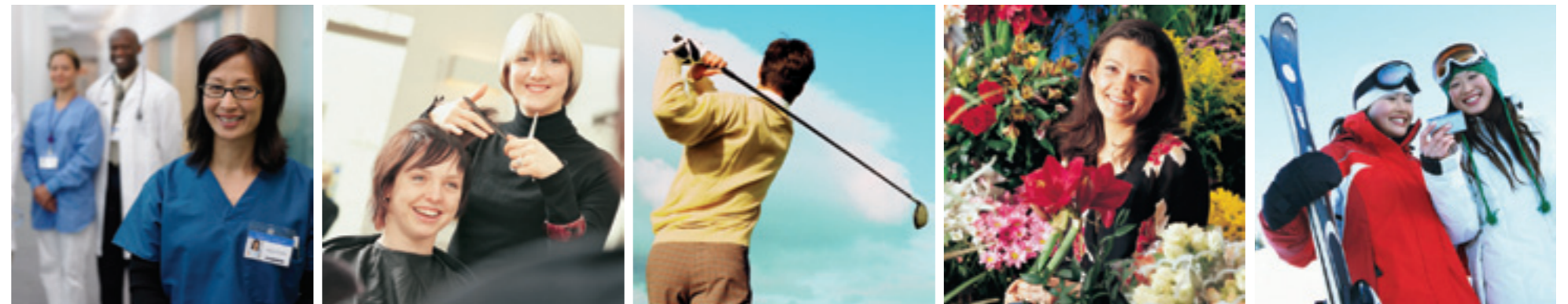
Please note, specifications may be subject to change.

nfive



Star | Visual Card & nfive

The new “PC Free” & compact, low-cost Loyalty option with Built-in Software allowing you to now take advantage of Star’s rewritable Visual Card Series



The Card that truly “Talks” to YOU

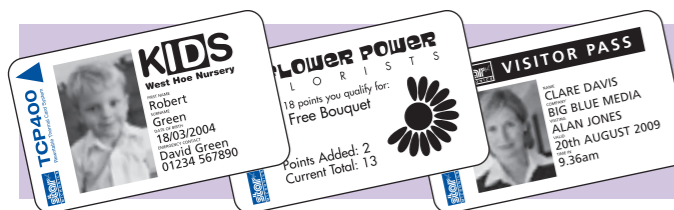
The combination of the Star Visual Card reader/writer and the nfive option provides a simple POS loyalty solution which can create membership cards immediately with up-to-date user information and promotions. This very low cost solution will provide businesses with an independent promotional, loyalty card solution which is easy to run and update in just a few seconds. New profit-making messages will provide an immediate incentive to your customers. Thin Leuco or credit card style cards can be erased and rewritten up to 500 times.

Visual Card Technology

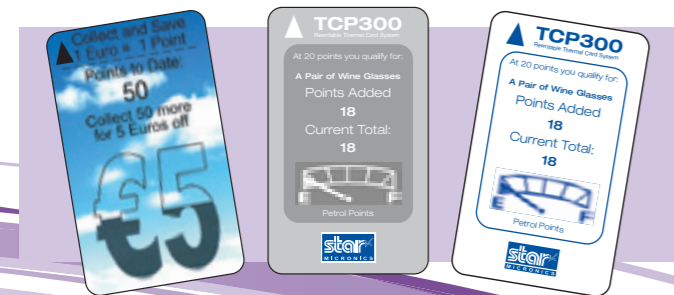
Star's latest generation of thermochromic Visual Card reader / writer systems uses Leuco based technology to create high quality text and graphics on low cost “instantly” re-writable thick (credit card style – 0.76mm) or thin (PET 0.26mm) card systems.

Key advantages

TCP400 Series uses 0.76mm “credit card” style of card systems which can be used with contactless IC chip card / RFID reader / writers (re-writable up to 500 insertions – 300 with barcode use).



TCP300 II Series uses 0.18mm to 0.33mm thick cards which can be also re-written up to 500 times. High contrast blue or black text and graphics can be produced on any colour “Leuco” based card. White text can also be produced on glossy silver standard cards.



Terminal 5 Loyalty Program Controller

The T5-LPC from nfive is the new "PC Free", compact low cost Loyalty option for use with Star TCP400 or TCP300. It provides an instant Loyalty Solution straight from the box which means NO EXTRA software is required.

By using the built-in web based management system on the T5-LPC, you can configure all operational parameters of the loyalty scheme and then run it standalone without the need for a permanent TCP/IP connection.

You can determine the type of Loyalty System you want, with point values, your chosen graphics, promotional messages etc. You can then run the solution “PC-Free”.

- Create Instant members who can immediately collect points
- Allow customers to instantly redeem points
- Cancel/re-issue the same card to a new user (cards can be re-written up to 500 times or 300 with barcode use)
- Suitable for non-networked multi-site/company use as all transactions are stored on the T5-LPC with points and value also stored on each card
- All transactions recorded with information accessible via web based server
- SDK kit available for 3rd party installation
- Multiple fraud protection schemes



Simple Configuration / Reporting via the Web Server based Software



This very low cost solution will provide businesses with an independent promotional, loyalty card solution which is easy to run and update in just a few seconds with new profit-making messages which will provide an immediate incentive to your customers. All you need is a Star TCP300 / TCP400 and T5-LPC from nfive which can be mounted side by side or shelved etc. The two units together are no larger than an A4 page.



The Initial Set-Up requires a PC but could not be simpler. To locate and establish your connection for your solution simply connect the keypad to a PC using the internal Ethernet network connector, access the network and an IP address will appear on the keypad. Copy this IP address into the PC's web browser and the Web Based Remote Management System will provide pre-set configuration pages enabling you to add logos, promotional messages, determine your points value system as well as store records of all transactions.

T5-LPC SPECIFICATIONS

Size	193 x 90 x 35
Weight	330g
Operation Temperature	-20°C to +65°C
Storage Temperature	-40°C to +85°C
Operation Humidity	5% to 95% relative humidity non-condensing
Power	
MBUS connector	12 – 28V – 1,25A
PoE	33 – 57V – IEEE 802.3af compliant Class O – Max 12,95 W
USB	5V, 500 mA
Output Relay (out1 and out2)	30VDC, 500 mA
Analog Inputs (in1 and in2)	Opto-Isolated
Microprocessor	ARM7
Program Flash Memory	512Kb
Data Memory	4 Mb
Event Storage Capacity	Over 10,000 events
Communications	Ethernet 10Mb DHCP POE MBUS USB 1.1
Keyboard	4 x 4 keys Capacitive keyboard
LCD Display	2 lines x 15 columns back-lit
Buzzer	Polyphonic
Light Sensor	Opto Hybrid
Motion Sensor	From light sensor balance
Tamper	Internal tamper switch
Temperature Sensor	12 bit resolution accuracy / -55°C to 125°C
Operating standards	ISO14443A
Approvals/Compliances	RoHS compliant, IP65 compliant

Blank cards

Cards can be sourced from manufacturers around the world with pricing dependent on colours used and quantity produced. In order to facilitate start-up projects, Star Micronics can provide boxes of 100 “blank” thin or thick cards for the TCP300 II and TCP400 respectively.

