

NPCI/ CTS/2010-11/1304

21<sup>st</sup> September 2010

To,

**The Chairman and Managing Director/Chief Executive Officer  
All Scheduled Commercial Banks including RRBs/Urban Cooperative Banks  
State Co-operative Banks/ District Co-operative Banks**

Dear Sir,

**CTS- 2010 Standards: Implementation – Guidance Note**

We invite attention to RBI circular Ref DPSS.CO.CHD.No. 1832/04.07.05/2009-10 dated February 22, 2010 on the **Standardisation and Enhancement of Security Features in Cheque Forms** according to which RBI vested joint responsibility to IBA and NPCI to co-ordinate and advise banks on the introduction and implementation of additional security features on cheque forms. NPCI and IBA have since held meetings with various bank representatives, empanelled printers and paper manufacturers. Based on the feedback received during these interactions, the following guidance Note is issued.

2. This Guidance Note will be called CTS-2010 guidance note. Banks have to comply with the Guidelines issued by the Reserve Bank of India Vide Circular No. DPSS.CO.CHD.No. 1832/04.07.05/2009-10 dated February 22, 2010 on the **Standardisation and Enhancement of Security Features in Cheque Forms**, while placing printing orders for fresh inventory with effect from October 1, 2010.

3. CTS-2010 Standards Specifications issued by RBI contains Mandatory features which are minimum required security features on cheque forms and optional/desirable features, inclusion of which depends on respective bank and their risk perception subject to the features being compatible with CTS requirements.

4. The following are the revised mandatory security features to be introduced in the new cheque forms to be printed by the banks.

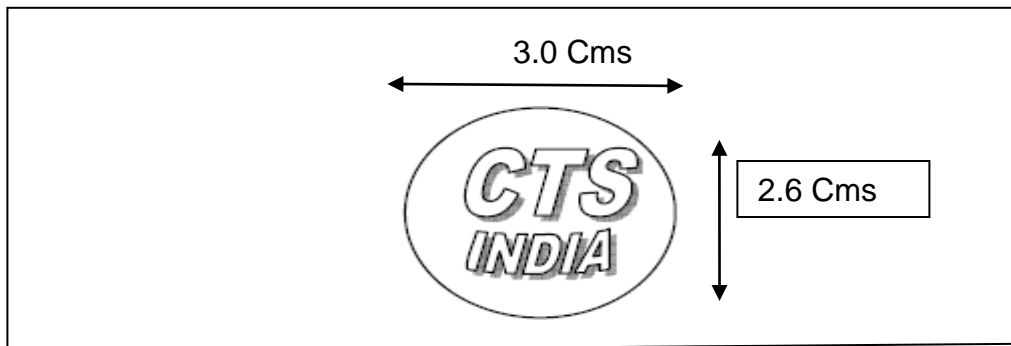
**A. Mandatory features**

**4.1 Water Mark (To be incorporated at paper manufacturing stage)**

All new cheque forms to be printed have to carry a standard watermark, with the words “CTS-INDIA” as mentioned below. The Watermark needs to be visible when cheque form is held against any light source. The watermark has to be oval in shape and must have a bigger diameter as 3.0 centimeters and smaller diameter as 2.6 centimeters. Each cheque needs to hold at least one full

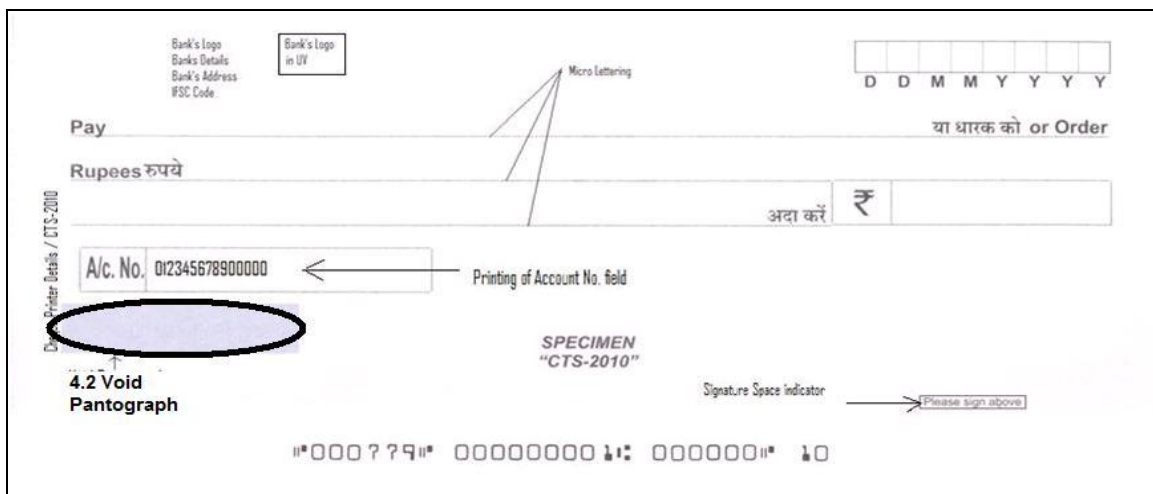
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watermark (as has been communicated by IBA to all member banks vide their letter dated 12<sup>th</sup> June 2010.) Banks should refer below mentioned logo and the watermark should be clearly visible for all cheques. Banks can incorporate their own name/logo watermark in the same “dandy” procured for CTS- INDIA watermark.



#### 4.2 VOID pantograph (At Printing Stage)

In all new cheque forms, pantograph with hidden / embedded word “VOID” needs to be included at lower left hand corner (Please refer below mentioned image and sample cheque attached). “Void” pantographs that are intended to appear on copies as a security measure to prevent fraudulent duplication must not be visible on either grayscale (100 dpi) or binary (i.e. black & white) (200 dpi) images captured from original cheques under CTS clearing environment. As specified by RBI word “VOID” should be clearly visible in photocopies such cheques. (Please refer image on page no.11)



### 4.3 Ultra Violet-UV logo of Bank (At Printing Stage)

Bank's logo should be printed at upper left hand corner of the cheque form (At place specified in sample cheque) along with or without Bank name details in ultra-violet (UV) ink. The logo will be visible in UV-lamps to establish the genuineness of the cheque. Banks should verify UV logo of a cheque as a fraud detector tool.

The diagram illustrates the layout of a cheque form with the following elements:

- Bank's Logo in UV:** A red circle highlights the area for the bank's logo, which is printed in ultra-violet ink.
- Bank's Logo, Bank's Details, Bank's Address, IFSC Code:** Text labels pointing to the area where these details are printed.
- 4.3 Ultra Violet UV logo of Bank:** A label pointing to the logo area.
- Date Field:** A field with boxes for 'D D M M Y Y Y'.
- Pay:** The word 'Pay' followed by a line for the amount.
- Rupees रुपये:** The word 'Rupees' followed by 'रुपये' and a line for the amount in words.
- A/c. No. 0123456789000000:** The account number field with a label 'Printing of Account No. field' pointing to it.
- Void Pantograph:** A shaded area labeled 'Void Pantograph'.
- SPECIMEN "CTS-2010":** A watermark or text indicating the cheque is a specimen.
- Signature Space indicator:** A label pointing to the area where the signature should be placed, with the instruction 'Please sign above'.
- MICR Line:** A line of numbers at the bottom: '⑈0000??9⑈ 000000000 ⑆: 0000000⑈ ⑆0'.

### 4.4 Standardizing Field placements of a cheque

Significant fields of a cheque such as Date, Payee Name, Amount in Words and Figures, Drawee Account No., Drawee Signature space etc have been standardised and the new cheque forms should adhere to these standards (Please refer sample cheque attached on page 9). Banks printing bank's details in bilingual or multilingual should also adhere to field placements. For dimensions and measurements for various field banks can refer RBI circular ref no. DPSS.CO.CHD.No. 1832/04.07.05/2009-10 dated 22<sup>nd</sup> February 2010.

### 4.5 Cheque printing Colours and Background

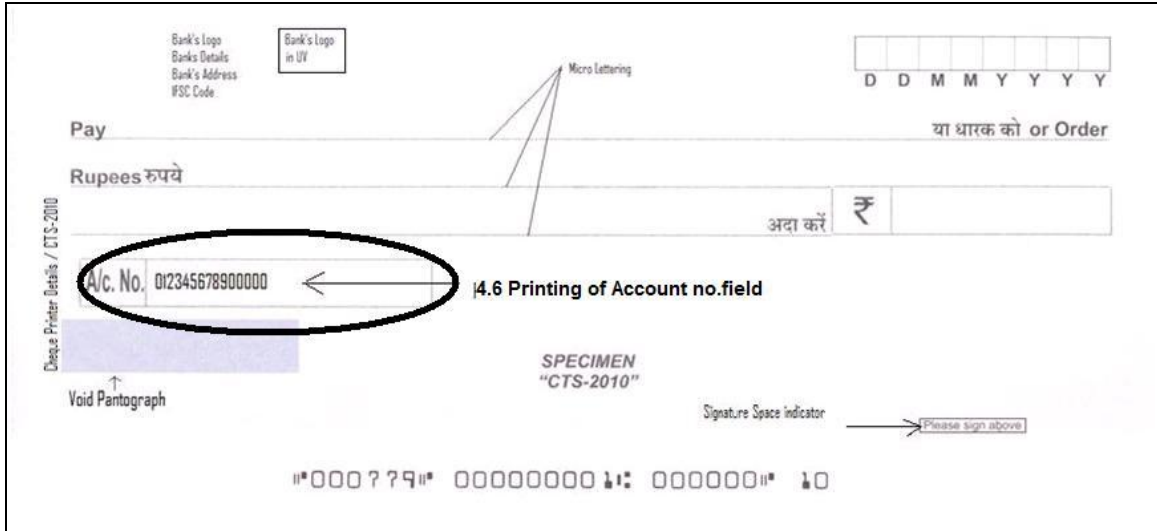
All cheques are required to be printed in light pastel colours. (Choice of colours is bank's discretion). Banks should take care while selecting cheques printing colour that Print Contrast Ratio/ Dynamic Contrast Ratio (PCR/DCR ratio) should not exceed 60% under Cheque Truncation System (CTS) clearing. In other words the minimum Print Contrast Signal of pre-printed data on the front of a Cheque form shall be 0.60 with respect to its immediate surrounding background.

Background of cheques should be kept blank & without any kind of printing for improving quality and clarity of images under CTS environment.

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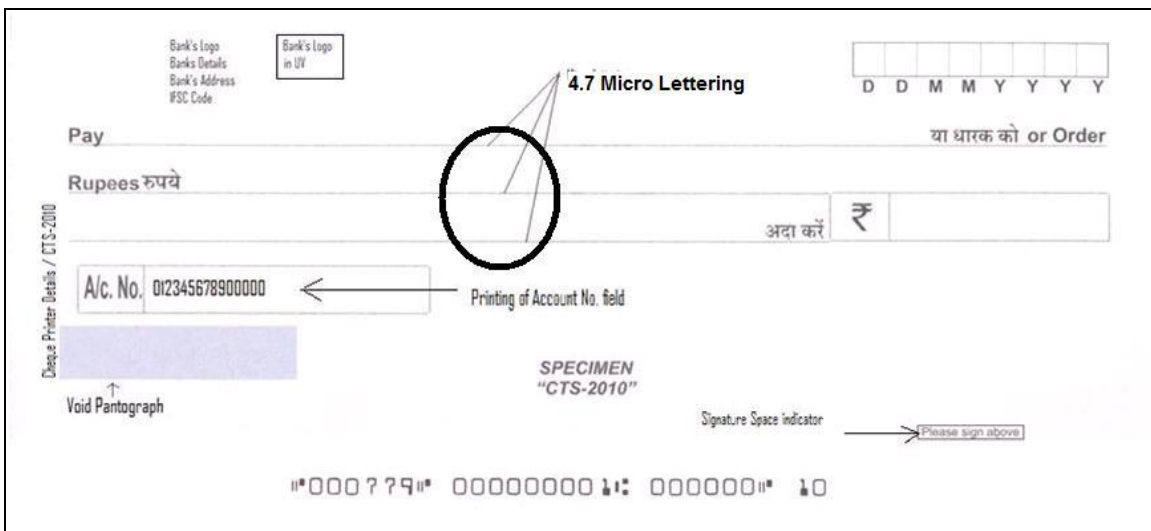
#### 4.6 Printing of account number field

All cheques forms are to be issued with the account number field (at the provided placeholder as per the sample enclosed) pre-printed as far as possible and if not then cheque should not have hand written account number filled in, banks can use rubber stamp for imprinting account no. on cheque forms .



#### 4.7 Micro lettering

All cheques should have own bank's name in the Micro lettering feature which is not easily visible/recognizable without use of the magnifying glass as such letters are printed on cheque forms with micro letters printed in tiny fonts. Banks can refer enclosed sample cheque for micro lettering field placement.



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#### 4.8 New Rupee Symbol

Banks should use new rupee symbol "₹" instead of using bilingual format at CAR (Courtesy Amount Recognition) amount in figure field.

The diagram illustrates a cheque form with various fields and labels. At the top left, there are boxes for 'Bank's Logo' and 'Bank's Logo in UV'. Below these are fields for 'Bank's Details' and 'Bank's Address #SC Code'. A date field is labeled 'D D M M Y Y Y Y'. The main body of the cheque has 'Pay' and 'Rupees रुपये' lines. The amount field is circled in black and labeled '4.8 New Rupee Symbol'. Below the amount field is the 'A/c. No.' field with the value '0123456789000000' and the label 'Printing of Account No. field'. A 'Void Pantograph' is shown below the account number. The text 'SPECIMEN "CTS-2010"' is printed in the center. At the bottom, there is a 'Signature Space indicator' and the instruction 'Please sign above'. The MICR line at the bottom reads '⑈0000??9⑈ 000000000 ⑆⑆ 000000⑈ ⑆0'.

4.9 All new cheque forms should carry printer name along with printing "CTS- 2010" for establishing CTS 2010 compliance.

The diagram illustrates a cheque form similar to the one above, but with a different label in the amount field. The amount field is circled in black and labeled '4.9 Cheque Printer Details / CTS-2010'. The rest of the form, including the account number, printer name, and MICR line, is identical to the previous diagram.

#### B. Optional/Desirable Features

In addition to the mandatory security features as above, banks can consider including additional security features as per their risk perception like (i) supplementary watermark containing their own logo, (ii) embedded fluorescent fibres, (iii) fugitive ink, (iv) secondary fluorescent ink, (v) toner fusing, (vi) check-sum, (vii) patterns, (viii) floral designs, (ix) bleeding ink, (x) structural magnetic,

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(xi) security thread, (xii) hot stamped holograms on multi-city cheques and demand drafts, (xiii) auto-detection tools, (xiv) use of UV band on sensitive and key areas of interest on a cheque such as Legal Amount Recognition (Amount in Words), Courtesy Amount Recognition (Amount in Figures), Signature, Beneficiary Name, (xv) pre-encoding of amount field on the MICR band for demand drafts / pay orders (above a self-decided cut-off) before issue to customers, (xvi) use of check-sum on the face of demand drafts / pay orders (other than the MICR band), etc.

While incorporating additional features, banks should take care that-

- i. The additional security features do not overlap or be very close or clash against the prescribed minimum features.
- ii. The features are compatible with CTS specifications.
- iii. The features are not image heavy, i.e. increase in image size in terms of storage and transmission under CTS environment
- iv. They should not block any important data on images or hinder payment processing.

#### 5. **Process for Authorization/Certification of Sample Cheques by NPCI**

- i. Banks should submit 500 sample cheques to NPCI for certification.
- ii. NPCI will check sample cheques for each mandatory feature and confirm their adherence to the CTS 2010 standards.
- iii. NPCI will test the samples under MICR and CTS clearing environment and will provide test report to the banks. Batches of cheques meeting the mandatory features requirements but with a MICR reject rate/IQA failed rate above 1% will be rejected and banks would have to furnish fresh samples.
- iv. NPCI will be providing the test report within **3** working days of cheque samples being submitted by banks.
- v. Charges for sample testing will be Rs.1000/- per cycle of 500 cheques sample testing.
- vi. Banks are requested to remit sample testing fees at the time of submitting sample cheques through Demand Draft / Pay order of **Rs.1000/-** in favour of “**National Payments Corporation of India**” payable at **Mumbai** only.

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**6. Timeline by which entire process for first authorization before printing from NPCI should be completed by each bank**

The entire exercise of implementation of CTS 2010 standards should be completed by each bank by 31<sup>st</sup> December 2010. And all further cheque forms issued by banks should be as per sample certified by NPCI.

7. This implementation guidance note has been issued in concurrence with Indian Banks' Association.

8. Please acknowledge the receipt of the guidance note.

Thanking you,

Yours faithfully,

A.P.Hota  
(Chief Executive Officer)

For any further clarification on guidelines banks can contact following official,

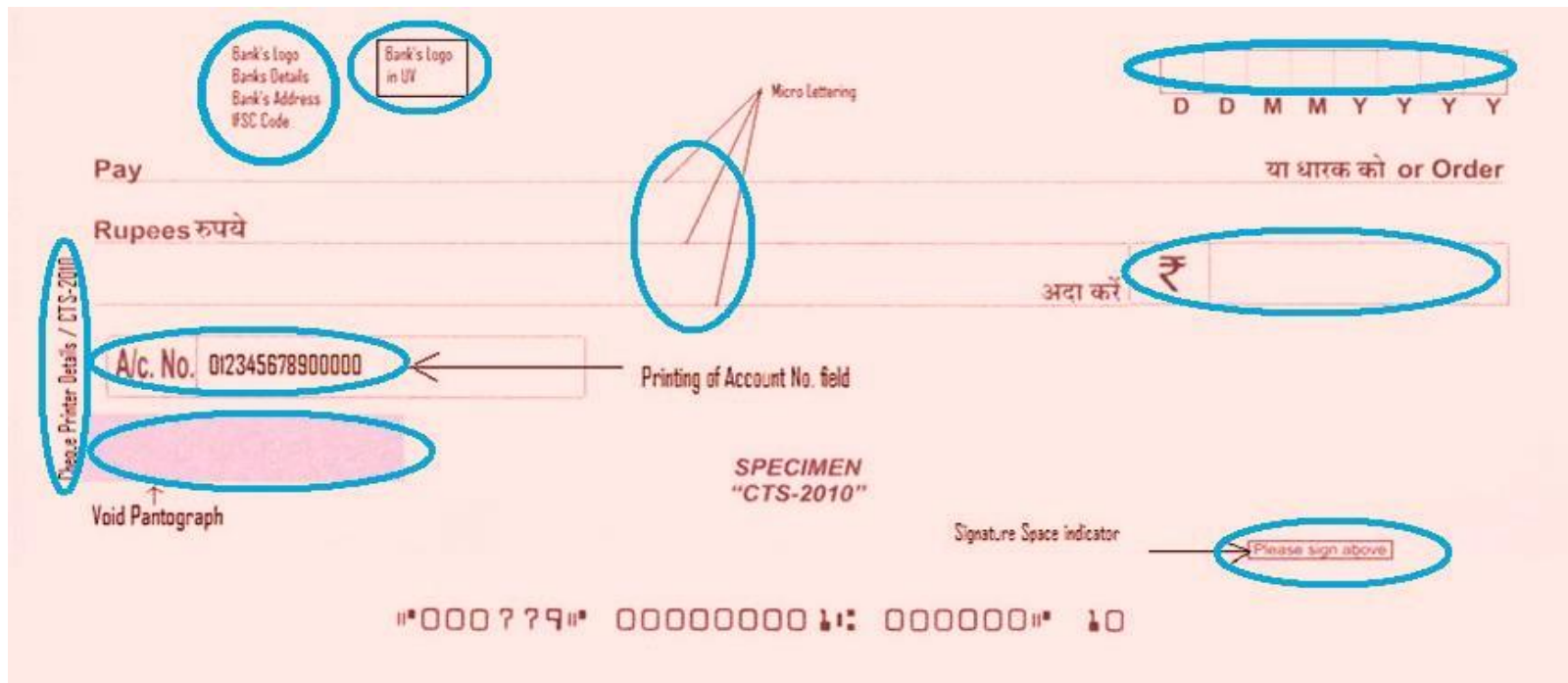
The Manager, Cheque Clearing,  
National Payments Corporation of India  
C-9, 8th Floor, RBI Building,  
Bandra Kurla Complex, Bandra (E),  
Mumbai - 400 051  
Tel. No. : 022-26573150| Fax:022 2657 1001 | email-[cts@npci.org.in](mailto:cts@npci.org.in)





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**B. Copy of Sample Cheque indicating field placement:**



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**C. How Void pantograph will appear on photocopy**

The image shows a photocopy of a check form. At the top right, there is a date field with boxes labeled D, D, M, M, Y, Y, Y, Y. Below this, the word "Pay" is followed by a horizontal line. To the right of this line is the text "या धारक को or Order". Below "Pay" is the word "Rupees रुपये" followed by another horizontal line. Below this line is the text "अदा करें ₹" followed by a box for the amount. Below the amount box is a box labeled "A/c. No." with a greyed-out area below it, circled in black. To the right of this circled area is the text "Void" appeared in photocopies. Below the circled area is the text "MEN" and "2010". At the bottom right, there is the text "Please sign above". At the bottom of the form, there is a MICR line with the text "⑈0008 ? ⑈ 00000000 ⑈ 000000 ⑈ ⑈0".