$$\Theta^\alpha_\beta = \sum_\mu A^\alpha_\mu \wedge \bar{A}^\beta_\mu,$$

where $A^\alpha_\mu = \sum A^\alpha_{\mu j}\, dz_j$ is a matrix of (1,0) forms.

「 According to P79. we have a surjective holomorphic bundle map

$$\ker f \longrightarrow M \times \mathbb{C}^n \xrightarrow{f} E \longrightarrow 0.$$

$\Rightarrow$ $E = \dfrac{M\times\mathbb{C}^n}{\ker f}$. $\Rightarrow$ By the computation on P78,

$$\Theta_E = \Theta_{M\times\mathbb{C}^n}|_E + A\wedge {}^t\bar{A}.$$

Since $\Theta_{M\times\mathbb{C}^n} = 0$, $\Theta_E = A\wedge {}^t\bar{A}$

On P79. $A = \sum a^\alpha_{\lambda j}\, dz_\alpha \otimes e_\lambda \otimes e^*_j$.

Let $A^\lambda_{j\alpha} = a^\alpha_{\lambda j}$. $\Rightarrow$ $A = \sum A^\lambda_{j\alpha}\, dz_\alpha \otimes e_\lambda \otimes e^*_j$

$\Rightarrow$ ${}^t\bar{A} = \sum \bar{a}^\alpha_{\lambda j}\, d\bar{z}_\alpha \otimes e^*_\lambda \otimes e_j = \sum \bar{A}^\lambda_{j\alpha}\, d\bar{z}_\alpha \otimes e^*_\lambda \otimes e_j$
$= \sum \bar{A}^\beta_{i\ell}\, d\bar{z}_\ell \otimes e^*_\beta \otimes e_i$

$A\wedge {}^t\bar{A}(e_k) = A\wedge(\sum \bar{A}^k_{i\ell}\, d\bar{z}_\ell \otimes e_i)$
$= \sum A^\lambda_{i\alpha}\, dz_\alpha \otimes e_\lambda \wedge \bar{A}^k_{i\ell}\, d\bar{z}_\ell = \sum A^\lambda_{i\alpha}\, dz_\alpha \wedge \bar{A}^k_{i\ell}\, d\bar{z}_\ell$
$\otimes\, e_\lambda$ $\Rightarrow$ $A\wedge {}^t\bar{A} = \sum A^\lambda_{i\alpha}\, dz_\alpha \wedge \bar{A}^k_{i\ell}\, d\bar{z}_\ell\; e^*_k \otimes e_\lambda = \Theta^\lambda_k$ 」